

SEQUENCE LISTING

<110> Tozer, Eileen Collins
Zhang, Feiyu
Abulencia, Carl
Frey, Gerhardt
Parra-Gessert, Lilian

<120> FLUORESCENT PROTEINS, NUCLEIC ACIDS ENCODING THEM AND METHODS FOR MAKING AND USING THEM

<130> 09010-101W01

<140> not assigned
<141> 2003-07-21

<150> US 60/397,684
<151> 2002-07-19

<160> 198

<170> FastSEQ for Windows Version 4.0

<210> 1
<211> 684
<212> DNA
<213> Unknown

<220>

<223> Obtained from an environmental sample

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acgttcaatg ggcataagtt tgaatatacaa ggcgaaggac acggaaagcc ttatgcaggc 120
accaatttcg ttaagcttgt ggttaccagg ggtggacctt tgccatttgg ttggcacatt 180
ttgtcgccac aatttcagta tggaaacaag acgtttgtca gctaccctag agacataaccc 240
gattatataa agcagtcat tcctgagggc ttacatggg aacggatcat gacccatcgaa 300
gacgggtggcg tgggttat caccagtat atcagtttgaa aagcaacaa ctgttttttc 360
aacgacatca agttcactgg catgaacttt cctccaaatg gatctgttgc gcagaagaag 420
acgataggct gggaaaccag cactgagcgt ttgtatctgc gtgacgggg gctgacagaga 480
gacattgata agacactgaa gtcagcggg ggtggtcatt acacatgcgc ctttaaaact 540
atttacaggt cgaagaagaa cttgacgctg cctgattgcc ttactatgt tgacacccaa 600
cttgatataa ggaagttcgaa cgaaaattac atcaacgttg agcaggatga aattgctact 660
gcacgccacc atgggcttaa ataa 684

<210> 2

<211> 227
<212> PRT
<213> Unknown

<220>

<223> Obtained from an environmental sample

<400> 2
Met Ser His Ser Lys Ser Val Ile Lys Asp Glu Met Phe Ile Lys Ile
1 5 10 15
His Leu Glu Gly Thr Phe Asn Gly His Lys Phe Glu Ile Glu Gly Glu
20 25 30
Gly His Gly Lys Pro Tyr Ala Gly Thr Asn Phe Val Lys Leu Val Val
35 40 45
Thr Arg Gly Gly Pro Leu Pro Phe Gly Trp His Ile Leu Ser Pro Gln
50 55 60

Phe Gln Tyr Gly Asn Lys Thr Phe Val Ser Tyr Pro Arg Asp Ile Pro
 65 70 75 80
 Asp Tyr Ile Lys Gln Ser Phe Pro Glu Gly Phe Thr Trp Glu Arg Ile
 85 90 95
 Met Thr Phe Glu Asp Gly Gly Val Cys Cys Ile Thr Ser Asp Ile Ser
 100 105 110
 Leu Lys Ser Asn Asn Cys Phe Phe Asn Asp Ile Lys Phe Thr Gly Met
 115 120 125
 Asn Phe Pro Pro Asn Gly Ser Val Val Gln Lys Lys Thr Ile Gly Trp
 130 135 140
 Glu Pro Ser Thr Glu Arg Leu Tyr Leu Arg Asp Gly Val Leu Thr Gly
 145 150 155 160
 Asp Ile Asp Lys Thr Leu Lys Leu Ser Gly Gly His Tyr Thr Cys
 165 170 175
 Ala Phe Lys Thr Ile Tyr Arg Ser Lys Lys Asn Leu Thr Leu Pro Asp
 180 185 190
 Cys Leu Tyr Tyr Val Asp Thr Lys Leu Asp Ile Arg Lys Phe Asp Glu
 195 200 205
 Asn Tyr Ile Asn Val Glu Gln Asp Glu Ile Ala Thr Ala Arg His His
 210 215 220
 Gly Leu Lys
 225

<210> 3

<211> 684

<212> DNA

<213> Unknown

<220>

<223> Obtained from an environmental sample

<400> 3

atgagtcatt	ccaagagtgt	gatcaaggat	gaaatgttca	tcaagattca	tctggaaagga	60
acgttcaatg	ggcacaagtt	tgaaaatagaa	ggcgaaggac	acggaaagcc	ttatgcaggc	120
accaatttcg	ttaagcttgt	ggttaccaag	ggtgacctt	tgcatttgg	ttggcacatt	180
ttgtcgccac	aatttcagta	tggaaacaag	acgtttgtca	gctaccctag	agacatacc	240
gattatataa	agcagtcat	tcctgagggc	tttacatggg	tacggatcat	gacctttgaa	300
gacggtggcg	tgtgttgtat	caccagtat	atcagttga	aaagcaacaa	ctgttttttc	360
aacgacatca	agttcaactgg	catgaacttt	cctccaaatg	gaccgtttgt	gcagaagaag	420
acgataaggct	gggaacccag	cactgagcgt	ttgttatctgc	gtgacgggggt	gctgacagga	480
gacattgtataa	agacactgaa	gctcagcgg	ggtggtcatt	acacatgcgc	ctttaaaact	540
atttacaggt	cgaagaagaa	cttgacgctg	cctgattgt	tttactatgt	tgacacccaa	600
cttgatataa	ggaagttcga	cgaaaattac	atcaacgtt	agcaggatga	aattgtact	660
gcacgcccacc	atgggcttaa	ataa				684

<210> 4

<211> 227

<212> PRT

<213> Unknown

<220>

<223> Obtained from an environmental sample

<400> 4

Met Ser His Ser Lys Ser Val Ile Lys Asp Glu Met Phe Ile Lys Ile						
1	5	10	15			
His Leu Glu Gly Thr Phe Asn Gly His Lys Phe Glu Ile Glu Gly Glu						
20	25	30				
Gly His Gly Lys Pro Tyr Ala Gly Thr Asn Phe Val Lys Leu Val Val						
35	40	45				
Thr Lys Gly Gly Pro Leu Pro Phe Gly Trp His Ile Leu Ser Pro Gln						
50	55	60				
Phe Gln Tyr Gly Asn Lys Thr Phe Val Ser Tyr Pro Arg Asp Ile Pro						
65	70	75	80			

Asp Tyr Ile Lys Gln Ser Phe Pro Glu Gly Phe Thr Trp Val Arg Ile
 85 90 95
 Met Thr Phe Glu Asp Gly Gly Val Cys Cys Ile Thr Ser Asp Ile Ser
 100 105 110
 Leu Lys Ser Asn Asn Cys Phe Phe Asn Asp Ile Lys Phe Thr Gly Met
 115 120 125
 Asn Phe Pro Pro Asn Gly Pro Val Val Gln Lys Lys Thr Ile Gly Trp
 130 135 140
 Glu Pro Ser Thr Glu Arg Leu Tyr Leu Arg Asp Gly Val Leu Thr Gly
 145 150 155 160
 Asp Ile Asp Lys Thr Leu Lys Leu Ser Gly Gly His Tyr Thr Cys
 165 170 175
 Ala Phe Lys Thr Ile Tyr Arg Ser Lys Lys Asn Leu Thr Leu Pro Asp
 180 185 190
 Cys Phe Tyr Tyr Val Asp Thr Lys Leu Asp Ile Arg Lys Phe Asp Glu
 195 200 205
 Asn Tyr Ile Asn Val Glu Gln Asp Glu Ile Ala Thr Ala Arg His His
 210 215 220
 Gly Leu Lys
 225

<210> 5

<211> 684

<212> DNA

<213> Unknown

<220>

<223> Obtained from an environmental sample

<400> 5

atgagtatttca	ctaagagtgt	gatcaaggat	gaaatgttca	tcaagattca	tctggaaagga	60
acgttcattttcg	ggcacaagtt	tgaaatagaa	ggcgaaggac	acggaaagcc	ttatgcaggc	120
accatatttcg	ttaagcttgt	ggttaccaag	ggtgacccctt	tgcattttgg	ttggcacatt	180
ttgtcgccac	aatttcagta	tggaaacaag	acgtttgtca	gctaccctag	agacatacc	240
gattatataa	agcagtatttca	tcctgagggc	tttacatggg	aacggatcat	gacccttggaa	300
gacgggtggcg	tgtgttgtat	caccagtgtat	atcagtttgaa	aaagcaacaa	ctgttttttc	360
aacgacatca	agttcactgg	catgaacttt	cctccaaatg	gacctgttgt	gcagaagaag	420
acgataggct	gggaaccagg	cactgagcgt	ttgtatctgc	gtgacgggg	gctgacagga	480
gacattgtat	agacactgaa	gctcagcgg	ggtggtcatt	acacatgcgc	ctttaaaact	540
atttacaggt	cgaagaagaa	cttgacgctg	cctgattgt	tttactatgt	tgacaccaaa	600
cttgatataa	ggaagttcg	cgaaaattac	atcaacgttg	agcaggatga	aattgtact	660
gcacgccacc	atgggcttaa	ataaa				684

<210> 6

<211> 227

<212> PRT

<213> Unknown

<220>

<223> Obtained from an environmental sample

<400> 6

Met Ser His Ser Lys Ser Val Ile Lys Asp Glu Met Phe Ile Lys Ile						
1 5 10 15						
His Leu Glu Gly Thr Phe Asn Gly His Lys Phe Glu Ile Glu Gly Glu						
20 25 30						
Gly His Gly Lys Pro Tyr Ala Gly Thr Asn Phe Val Lys Leu Val Val						
35 40 45						
Thr Lys Gly Gly Pro Leu Pro Phe Gly Trp His Ile Leu Ser Pro Gln						
50 55 60						
Phe Gln Tyr Gly Asn Lys Thr Phe Val Ser Tyr Pro Arg Asp Ile Pro						
65 70 75 80						
Asp Tyr Ile Lys Gln Ser Phe Pro Glu Gly Phe Thr Trp Glu Arg Ile						
85 90 95						

Met Thr Phe Glu Asp Gly Gly Val Cys Cys Ile Thr Ser Asp Ile Ser
 100 105 110
 Leu Lys Ser Asn Asn Cys Phe Phe Asn Asp Ile Lys Phe Thr Gly Met
 115 120 125
 Asn Phe Pro Pro Asn Gly Pro Val Val Gln Lys Lys Thr Ile Gly Trp
 130 135 140
 Glu Pro Ser Thr Glu Arg Leu Tyr Leu Arg Asp Gly Val Leu Thr Gly
 145 150 155 160
 Asp Ile Asp Lys Thr Leu Lys Leu Ser Gly Gly His Tyr Thr Cys
 165 170 175
 Ala Phe Lys Thr Ile Tyr Arg Ser Lys Lys Asn Leu Thr Leu Pro Asp
 180 185 190
 Cys Phe Tyr Tyr Val Asp Thr Lys Leu Asp Ile Arg Lys Phe Asp Glu
 195 200 205
 Asn Tyr Ile Asn Val Glu Gln Asp Glu Ile Ala Thr Ala Arg His His
 210 215 220
 Gly Leu Lys
 225

<210> 7
 <211> 684
 <212> DNA
 <213> Unknown

<220>
 <223> Obtained from an environmental sample

<400> 7
 atgagtcatt ccaagagtgt gatcaaggac gaaatgttca tcaagattca tctggaaagga 60
 acgttcaatg ggcacaagg tgaatatacgaa ggcgagggaa acgggaagcc ttatgcaggc 120
 accaatttcg ttaagcttgt ggttaccaag ggtgggcctc ttccattttgg ttggcacatt 180
 ttgtcgccac aattacaata cgaaacaacg tcgtttgtca gctaccctgc agacataacct 240
 gattatataa agctgtcatt tcctgagggc ttacatatgg aaaggatcat gaccttgaa 300
 gacggtggcg tgggttgtat caccagtatc atcgttatga aaagcaacaa ctgtttcttc 360
 tacgacatca agttcactgg catgaacttt cctccaaatg gacctgttgt gcagaagaag 420
 accacaggct gggAACCCAG tactgagcgt ttgtatctgc gtgacggggt gctgacagga 480
 gacattcata agacactgaa gctcagcggg ggtggtcatt acacatgcgt ctttaaaact 540
 attacaggt cgaagaagaa cttgacgcgtc cctgattgtc tttactatgt tgacacccaa 600
 cttgatataa ggaagttcga cgaaaattac atcaacgtt agcaggatga aattgtact 660
 gcacgccacc atgggcttaa ataa 684

<210> 8
 <211> 227
 <212> PRT
 <213> Unknown

<220>
 <223> Obtained from an environmental sample

<400> 8
 Met Ser His Ser Lys Ser Val Ile Lys Asp Glu Met Phe Ile Lys Ile
 1 5 10 15
 His Leu Glu Gly Thr Phe Asn Gly His Lys Phe Glu Ile Glu Gly Glu
 20 25 30
 Gly Asn Gly Lys Pro Tyr Ala Gly Thr Asn Phe Val Lys Leu Val Val
 35 40 45
 Thr Lys Gly Gly Pro Leu Pro Phe Gly Trp His Ile Leu Ser Pro Gln
 50 55 60
 Leu Gln Tyr Gly Asn Lys Ser Phe Val Ser Tyr Pro Ala Asp Ile Pro
 65 70 75 80
 Asp Tyr Ile Lys Leu Ser Phe Pro Glu Gly Phe Thr Trp Glu Arg Ile
 85 90 95
 Met Thr Phe Glu Asp Gly Gly Val Cys Cys Ile Thr Ser Asp Ile Ser
 100 105 110

Met Lys Ser Asn Asn Cys Phe Phe Tyr Asp Ile Lys Phe Thr Gly Met
 115 120 125
 Asn Phe Pro Pro Asn Gly Pro Val Val Gln Lys Lys Thr Thr Gly Trp
 130 135 140
 Glu Pro Ser Thr Glu Arg Leu Tyr Leu Arg Asp Gly Val Leu Thr Gly
 145 150 155 160
 Asp Ile His Lys Thr Leu Lys Leu Ser Gly Gly Gly His Tyr Thr Cys
 165 170 175
 Val Phe Lys Thr Ile Tyr Arg Ser Lys Lys Asn Leu Thr Leu Pro Asp
 180 185 190
 Cys Phe Tyr Tyr Val Asp Thr Lys Leu Asp Ile Arg Lys Phe Asp Glu
 195 200 205
 Asn Tyr Ile Asn Val Glu Gln Asp Glu Ile Ala Thr Ala Arg His His
 210 215 220
 Gly Leu Lys
 225

<210> 9
 <211> 687

<212> DNA

<213> Unknown

<220>

<223> Obtained from an environmental sample

<400> 9

atgaaggggg	tgaaggaagt	aatgaagatc	agtctggaga	tggactgcac	tgttaacggc	60
gacaattta	agatcaactgg	ggatggaaca	ggagaacctt	acgaaggAAC	acagacttta	120
catcttacag	agaaggaaagg	caaggcctctg	acgTTTCTT	tcgatgtatt	gacaccagca	180
tttcagtag	gaaaccgtac	attcacaaa	tacccagAGA	ataaccaga	cttttcaag	240
cagaccgtt	ctggTggcgg	gtatacctgg	gagcgaaaaa	tgacttatGA	agacgggggc	300
ataagtaac	tccgaagcga	catcagtgtg	aaaggtgact	ctttctacta	taagattcac	360
ttcactggcg	agtttccccc	tcatggtcca	gtgatgcaga	ggaagacagt	aaaatgggag	420
ccatccactg	aagtaatgt	tgttgacgac	aagagtgacg	gtgtgctgaa	gggagatgtc	480
aacatggctc	tgttgcttaa	agatggccgc	catttggagag	ttgactttaa	cacttcttac	540
atacccaaga	agaaggcgtca	gaatatgcct	gactaccatt	ttatagacca	ccgcatttgag	600
attctggcga	acccagaaga	caagccggtc	aagctgtacg	agtgtgctgt	agctcgctat	660
tctctgctgc	ctgagaagaa	caagtca				687

<210> 10

<211> 229

<212> PRT

<213> Unknown

<220>

<223> Obtained from an environmental sample

<400> 10

Met Lys Gly Val Lys Glu Val Met Lys Ile Ser Leu Glu Met Asp Cys						
1	5	10	15			
Thr Val Asn Gly Asp Lys Phe Lys Ile Thr Gly Asp Gly Thr Gly Glu						
20	25	30				
Pro Tyr Glu Gly Thr Gln Thr Leu His Leu Thr Glu Lys Glu Gly Lys						
35	40	45				
Pro Leu Thr Phe Ser Phe Asp Val Leu Thr Pro Ala Phe Gln Tyr Gly						
50	55	60				
Asn Arg Thr Phe Thr Lys Tyr Pro Gly Asn Ile Pro Asp Phe Phe Lys						
65	70	75	80			
Gln Thr Val Ser Gly Gly Tyr Thr Trp Glu Arg Lys Met Thr Tyr						
85	90	95				
Glu Asp Gly Gly Ile Ser Asn Val Arg Ser Asp Ile Ser Val Lys Gly						
100	105	110				
Asp Ser Phe Tyr Tyr Lys Ile His Phe Thr Gly Glu Phe Pro Pro His						
115	120	125				

Gly Pro Val Met Gln Arg Lys Thr Val Lys Trp Glu Pro Ser Thr Glu
 130 135 140
 Val Met Tyr Val Asp Asp Lys Ser Asp Gly Val Leu Lys Gly Asp Val
 145 150 155 160
 Asn Met Ala Leu Leu Leu Lys Asp Gly Arg His Leu Arg Val Asp Phe
 165 170 175
 Asn Thr Ser Tyr Ile Pro Lys Lys Val Glu Asn Met Pro Asp Tyr
 180 185 190
 His Phe Ile Asp His Arg Ile Glu Ile Leu Gly Asn Pro Glu Asp Lys
 195 200 205
 Pro Val Lys Leu Tyr Glu Cys Ala Val Ala Arg Tyr Ser Leu Leu Pro
 210 215 220
 Glu Lys Asn Lys Ser
 225

<210> 11

<211> 684

<212> DNA

<213> Unknown

<220>

<223> Obtained from an environmental sample

<400> 11

atgaaggggg tgaaggaagt catgaagatc agtctggaga tggactgcac ttttaacggc	60
gacaaattta agatcaactgg ggatggaca ggagaacctt acgaaggaac acagactta	120
catcttacag agaaggaagg caagccctcg acgtttctt tcgatgtatt gacaccagca	180
tttcagttat gaaaccgtac attcacaaa tacccaggca atataccaga cttttcaag	240
cagaccgtt ctggtggccc gtatacctgg gagcggaaaa tgacttatga agacggggc	300
ataagtaacg tccgaaggca catcaatgtt aaagggtact ctttctacta taagattcac	360
ttcactggcg agtttcctcc tcatggtcca gtgatgcaga ggaagacagt aaaatggag	420
ccatccactg aagtaatgtt tggacgtat aagagtgtt gtgagctgaa gggagatgtc	480
aacatggctc tggcttaa agatggccgc cattttagag ttgacttcaa cacttcttac	540
atacccaaga agaaggcgtca gaatatgcct gactaccatt ttatagacca ccgcatttag	600
attctggca acccagaaga caagccgtc aagctgtacg agtgtgtgt agctcgctat	660
tctctgctgc ctgagaagaa caag	684

<210> 12

<211> 228

<212> PRT

<213> Unknown

<220>

<223> Obtained from an environmental sample

<400> 12

Met Lys Gly Val Lys Glu Val Met Lys Ile Ser Leu Glu Met Asp Cys	
1 5 10 15	
Thr Val Asn Gly Asp Lys Phe Lys Ile Thr Gly Asp Gly Thr Gly Glu	
20 25 30	
Pro Tyr Glu Gly Thr Gln Thr Leu His Leu Thr Glu Lys Glu Gly Lys	
35 40 45	
Pro Leu Thr Phe Ser Phe Asp Val Leu Thr Pro Ala Phe Gln Tyr Gly	
50 55 60	
Asn Arg Thr Phe Thr Lys Tyr Pro Gly Asn Ile Pro Asp Phe Phe Lys	
65 70 75 80	
Gln Thr Val Ser Gly Gly Tyr Thr Trp Glu Arg Lys Met Thr Tyr	
85 90 95	
Glu Asp Gly Gly Ile Ser Asn Val Arg Ser Asp Ile Ser Val Lys Gly	
100 105 110	
Asp Ser Phe Tyr Tyr Lys Ile His Phe Thr Gly Glu Phe Pro Pro His	
115 120 125	
Gly Pro Val Met Gln Arg Lys Thr Val Lys Trp Glu Pro Ser Thr Glu	
130 135 140	

Val Met Tyr Val Asp Asp Lys Ser Gly Gly Glu Leu Lys Gly Asp Val
 145 150 155 160
 Asn Met Ala Leu Leu Leu Lys Asp Gly Arg His Leu Arg Val Asp Phe
 165 170 175
 Asn Thr Ser Tyr Ile Pro Lys Lys Val Glu Asn Met Pro Asp Tyr
 180 185 190
 His Phe Ile Asp His Arg Ile Glu Ile Leu Gly Asn Pro Glu Asp Lys
 195 200 205
 Pro Val Lys Leu Tyr Glu Cys Ala Val Ala Arg Tyr Ser Leu Leu Pro
 210 215 220
 Glu Lys Asn Lys
 225

<210> 13
 <211> 675
 <212> DNA
 <213> Unknown

<220>
 <223> Obtained from an environmental sample

<400> 13
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 aagatcactg gggatgaaac aggagaacct tacgaaggaa cacagacttt acatcttaca 120
 gagaaggaaag gcaaggctct gacgtttct ttcgatgtat tgacaccaggc atttcagttat 180
 ggcaaccgtt cattcaccaa atacccaggc aatataccag acttttcaa gcagaccgtt 240
 tctggggcg ggtataacctg ggagcgaaaa atgactttatg aagacggggg cataagtaac 300
 gtccgaagcg acatcagtgt gaaagggtgac tctttctact ataagattca cttcactggc 360
 gaatttcctt ctcacgggtt cttttttttt aagaagacgg taaaatggga gccatccact 420
 gaagtaatgtt atgtggacga taagatgtat ggtgtgcgtga agggagatgtt caacatggct 480
 ctgttgctta aagatggccg ccatttgcga gtggacttca acacttctta catacccaag 540
 aagaaggctg agaatatgcc tggacttccat tttagatgacc accgcatttga gattctggc 600
 aacccagatg acaatccggt caagctgtac gagggtgtctg tagctcgctg ttctctgctg 660
 cctgagaaga acaag 675

<210> 14
 <211> 225
 <212> PRT
 <213> Unknown

<220>
 <223> Obtained from an environmental sample

<400> 14
 Met Lys Glu Val Met Lys Ile Ser Leu Glu Met Asp Cys Thr Val Asn
 1 5 10 15
 Gly Asp Lys Phe Lys Ile Thr Gly Asp Gly Thr Gly Glu Pro Tyr Glu
 20 25 30
 Gly Thr Gln Thr Leu His Leu Thr Glu Lys Glu Gly Lys Pro Leu Thr
 35 40 45
 Phe Ser Phe Asp Val Leu Thr Pro Ala Phe Gln Tyr Gly Asn Arg Thr
 50 55 60
 Phe Thr Lys Tyr Pro Gly Asn Ile Pro Asp Phe Phe Lys Gln Thr Val
 65 70 75 80
 Ser Gly Gly Gly Tyr Thr Trp Glu Arg Lys Met Thr Tyr Glu Asp Gly
 85 90 95
 Gly Ile Ser Asn Val Arg Ser Asp Ile Ser Val Lys Gly Asp Ser Phe
 100 105 110
 Tyr Tyr Lys Ile His Phe Thr Gly Glu Phe Pro Ser His Gly Pro Val
 115 120 125
 Met Gln Lys Lys Thr Val Lys Trp Glu Pro Ser Thr Glu Val Met Tyr
 130 135 140
 Val Asp Asp Lys Ser Asp Gly Val Leu Lys Gly Asp Val Asn Met Ala
 145 150 155 160

Leu Leu Leu Lys Asp Gly Arg His Leu Arg Val Asp Phe Asn Thr Ser
 165 170 175
 Tyr Ile Pro Lys Lys Lys Val Glu Asn Met Pro Asp Tyr His Phe Ile
 180 185 190
 Asp His Arg Ile Glu Ile Leu Gly Asn Pro Asp Asp Asn Pro Val Lys
 195 200 205
 Leu Tyr Glu Cys Ala Val Ala Arg Cys Ser Leu Leu Pro Glu Lys Asn
 210 215 220
 Lys
 225

<210> 15
 <211> 693
 <212> DNA
 <213> Unknown

<220>
 <223> Obtained from an environmental sample

<400> 15
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 gacaatttg tgatcactgg ggttggaaaca ggccgaaacctt acgcacgggac acagattta
 aatcttacag ttggaggagg caaggctctg acattttctt tcgatatatatt gacaccagta
 tttatgtatg gcaacagagc attcacaaaa tacccagaga gtatcccaga ctttttcaag
 cagaccgttt ctggtggccg gtataacttgg aaacgaaaga tgatTTtatga tcacgaggct
 gagggcgtga gtaccgttga cggggacatc agtgtgaatg gagactgttt catctataag
 attacatttgc acggcacatt tcgttgaatg ggtgcagtga tgcagaagat gacggaaaaaa
 tgggaaccat ccactgaagt gatgtacaag gacgataaaa atgatgtatgt gctgaaggga
 gatgtcaacc atgcttttgc ttggaaatg ggcgcctatg tgcgagttga tttcaataacc
 tcttacaaag ccaagtcaaa gatcgagaat atgcctgtt accattttgt agaccaccgc
 atttagataa tagggcgatc atcgcaagac acgaaggctca agctgttcga gaacgctgtc
 gctcgttgc ttctgtgcc tgagaagaac cag

<210> 16
 <211> 231
 <212> PRT
 <213> Unknown

<220>
 <223> Obtained from an environmental sample

<400> 16
 Met Lys Gly Val Lys Glu Val Met Lys Ile Gln Val Lys Met Asn Ile
 1 5 10 15
 Thr Val Asn Gly Asp Lys Phe Val Ile Thr Gly Asp Gly Thr Gly Glu
 20 25 30
 Pro Tyr Asp Gly Thr Gln Ile Leu Asn Leu Thr Val Glu Gly Gly Lys
 35 40 45
 Pro Leu Thr Phe Ser Phe Asp Ile Leu Thr Pro Val Phe Met Tyr Gly
 50 55 60
 Asn Arg Ala Phe Thr Lys Tyr Pro Glu Ser Ile Pro Asp Phe Phe Lys
 65 70 75 80
 Gln Thr Val Ser Gly Gly Tyr Thr Trp Lys Arg Lys Met Ile Tyr
 85 90 95
 Asp His Glu Ala Glu Gly Val Ser Thr Val Asp Gly Asp Ile Ser Val
 100 105 110
 Asn Gly Asp Cys Phe Ile Tyr Lys Ile Thr Phe Asp Gly Thr Phe Arg
 115 120 125
 Glu Asp Gly Ala Val Met Gln Lys Met Thr Glu Lys Trp Glu Pro Ser
 130 135 140
 Thr Glu Val Met Tyr Lys Asp Asp Lys Asn Asp Asp Val Leu Lys Gly
 145 150 155 160
 Asp Val Asn His Ala Leu Leu Lys Asp Gly Arg His Val Arg Val
 165 170 175

Asp Phe Asn Thr Ser Tyr Lys Ala Lys Ser Lys Ile Glu Asn Met Pro
 180 185 190
 Gly Tyr His Phe Val Asp His Arg Ile Glu Ile Ile Gly Arg Ser Ser
 195 200 205
 Gln Asp Thr Lys Val Lys Leu Phe Glu Asn Ala Val Ala Arg Cys Ser
 210 215 220
 Leu Leu Pro Glu Lys Asn Gln
 225 230

<210> 17

<211> 687

<212> DNA

<213> Unknown

<220>

<223> Obtained from an environmental sample

<400> 17

atgaaggggg	tgaaggaagt	aatgaagatc	agtctggaga	tggactgcac	tgttaacggc	60
gacaattta	agatcaactgg	ggatggaaca	ggagaacctt	acgaaggaac	acagacttta	120
catccatcac	agaaggaaagg	caagccctcg	acgtttctt	tcgatgtatt	gacaccagca	180
tttcgtatgt	gaaaccgtac	attcacccaaa	tacccaggca	ataataccaga	cttttcaag	240
cagaccgtt	ctgggtggcg	gtataccctgg	gagcgaaaaaa	tgacttatga	agacgggggc	300
ataagtaacg	tccgaagcga	catcagtgtg	aaaggtgact	ctttctacta	taagattcac	360
ttcactggcg	agtttccctcc	tcatgttcca	gtgatgcaga	ggaagacagt	aaaatgggag	420
ccatccactg	aagtaatgtt	tgttgacgac	aagagtgcg	gtgtgctgaa	gggagatgtc	480
aacatggctc	tgttgcttaa	agatggccgc	catttgagag	ttgactttaa	cacttcttac	540
ataccxaaga	agaaggtcga	gaatatgcct	gactaccatt	ttatagacca	ccgcatttgag	600
attctggca	acccagaaga	caagccgtc	aagctgtacg	agtgtgtgt	agctcgctat	660
tctctgctgc	ctgagaagaa	caagtaaa				687

<210> 18

<211> 228

<212> PRT

<213> Unknown

<220>

<223> Obtained from an environmental sample

<400> 18

Met Lys Gly Val Lys Glu Val Met Lys Ile Ser Leu Glu Met Asp Cys						
1	5	10	15			
Thr Val Asn Gly Asp Lys Phe Lys Ile Thr Gly Asp Gly Thr Gly Glu						
20	25	30				
Pro Tyr Glu Gly Thr Gln Thr Leu His Leu Thr Glu Lys Glu Gly Lys						
35	40	45				
Pro Leu Thr Phe Ser Phe Asp Val Leu Thr Pro Ala Phe Gln Tyr Gly						
50	55	60				
Asn Arg Thr Phe Thr Lys Tyr Pro Gly Asn Ile Pro Asp Phe Phe Lys						
65	70	75	80			
Gln Thr Val Ser Gly Gly Tyr Thr Trp Glu Arg Lys Met Thr Tyr						
85	90	95				
Glu Asp Gly Gly Ile Ser Asn Val Arg Ser Asp Ile Ser Val Lys Gly						
100	105	110				
Asp Ser Phe Tyr Tyr Lys Ile His Phe Thr Gly Glu Phe Pro Pro His						
115	120	125				
Gly Pro Val Met Gln Arg Lys Thr Val Lys Trp Glu Pro Ser Thr Glu						
130	135	140				
Val Met Tyr Val Asp Asp Lys Ser Asp Gly Val Leu Lys Gly Asp Val						
145	150	155	160			
Asn Met Ala Leu Leu Lys Asp Gly Arg His Leu Arg Val Asp Phe						
165	170	175				
Asn Thr Ser Tyr Ile Pro Lys Lys Lys Val Glu Asn Met Pro Asp Tyr						
180	185	190				

His Phe Ile Asp His Arg Ile Glu Ile Leu Gly Asn Pro Glu Asp Lys
 195 200 205
 Pro Val Lys Leu Tyr Glu Cys Ala Val Ala Arg Tyr Ser Leu Leu Pro
 210 215 220
 Glu Lys Asn Lys
 225

<210> 19

<211> 762

<212> DNA

<213> Unknown

<220>

<223> Obtained from an environmental sample

<400> 19

atgaaggggg	tgaaggaagt	aatgaagatc	agtctggaga	tggactgcac	tgttaacggc	60
gacaattta	agatcaactgg	ggatggaaaca	ggagaacctt	acgaaggaac	acagacttta	120
catcttacag	agaaggaagg	caaggctctg	acgttttctt	tcatgttatt	gacaccagca	180
tttcgtatg	gaaaccgtac	attcaccaa	tacccaggca	ataaccaga	cttttcaag	240
cagaccgtt	ctggggccgg	gtataacctgg	gagcgaaaaa	tgacttatga	agacgggggc	300
ataagtaacg	tccgaagcga	catcaactgtg	aaaggtgact	ctttctacta	taagattcac	360
ttcactggcg	agtttccccc	tcatggtcca	gtgatgcaga	ggaagacagt	aaaatgggag	420
ccatccactg	agtaatgtt	tgttgcac	aagagtgacg	gtgtgctgaa	gggagatgtc	480
aacatggctc	tgttgcctaa	agatggccgc	catttgagag	ttgactttaa	cacttcttac	540
atacccaaga	agaaggtcga	gaatatgcct	gactaccatt	ttatagacca	ccgcatttag	600
attctgggca	acccagaaga	caagccggc	aagctgtacg	agtgtgctgt	agctcgctat	660
tctctgctgc	ctgagaagaa	caagtcaaag	ggcaattcga	agcttgaagg	taagcctatc	720
cctaaccctc	tcctcggtct	cgattctacg	cgtaccggtt	aa		762

<210> 20

<211> 253

<212> PRT

<213> Unknown

<220>

<223> Obtained from an environmental sample

<400> 20

Met Lys Gly Val Lys Glu Val Met Lys Ile Ser Leu Glu Met Asp Cys						
1	5	10	15			
Thr Val Asn Gly Asp Lys Phe Lys Ile Thr Gly Asp Gly Thr Gly Glu						
20	25	30				
Pro Tyr Glu Gly Thr Gln Thr Leu His Leu Thr Glu Lys Glu Gly Lys						
35	40	45				
Pro Leu Thr Phe Ser Phe Asp Val Leu Thr Pro Ala Phe Gln Tyr Gly						
50	55	60				
Asn Arg Thr Phe Thr Lys Tyr Pro Gly Asn Ile Pro Asp Phe Phe Lys						
65	70	75	80			
Gln Thr Val Ser Gly Gly Tyr Thr Trp Glu Arg Lys Met Thr Tyr						
85	90	95				
Glu Asp Gly Gly Ile Ser Asn Val Arg Ser Asp Ile Ser Val Lys Gly						
100	105	110				
Asp Ser Phe Tyr Tyr Lys Ile His Phe Thr Gly Glu Phe Pro Pro His						
115	120	125				
Gly Pro Val Met Gln Arg Lys Thr Val Lys Trp Glu Pro Ser Thr Glu						
130	135	140				
Val Met Tyr Val Asp Asp Lys Ser Asp Gly Val Leu Lys Gly Asp Val						
145	150	155	160			
Asn Met Ala Leu Leu Lys Asp Gly Arg His Leu Arg Val Asp Phe						
165	170	175				
Asn Thr Ser Tyr Ile Pro Lys Lys Lys Val Glu Asn Met Pro Asp Tyr						
180	185	190				
His Phe Ile Asp His Arg Ile Glu Ile Leu Gly Asn Pro Glu Asp Lys						

	195	200	205	
Pro	Val	Lys Leu Tyr Glu Cys	Ala Val Ala Arg Tyr	Ser Leu Leu Pro
210	215	215	220	
Glu	Lys Asn Lys Ser	Lys Gly Asn Ser Lys	Leu Glu Gly Lys Pro	Ile
225	230	230	235	240
Pro	Asn Pro Leu	Leu Gly Leu Asp Ser	Thr Arg Thr Gly	
	245	250		

<210> 21

<211> 786

<212> DNA

<213> Unknown

<220>

<223> Obtained from an environmental sample

<400> 21

gtgatggcga	tttccgcct	aaagaacgtc	atcatcatcg	taatcatata	ctcctgcagc	60
actagtctg	attcgtcgaa	ctcttactct	ggatcctcct	tgcgaatgg	gattgcagag	120
gaaatgtatg	ctgacctgca	tttagagggt	gctgttaacg	ggcaccaact	tacaattaaa	180
ggcgaaggag	gaggctaccc	ttacgaggga	gtgcagttt	tgagcctcg	ggttagtcaat	240
ggtgtcccc	ttccgttctc	ttttgatatc	ttgacaccgg	cattcatgt	tggcaacaga	300
gtgttcacca	agtatccaaa	agagatacca	cactattca	agcagacgtt	tcctgaaggg	360
tatcaactggg	aaagaagcat	tccccttcaa	gatcaggcct	cgtgcacgg	aaccagccac	420
ataaggatga	aagaggaaga	ggagcggcat	tttcttcta	acgtcaaatt	ttactgtgt	480
aattttcccc	ccaatggtcc	agtcatgcag	aggaggatac	ggggatggga	gccatccact	540
gagaacattt	atccgcgtga	tgaatttcta	gagggccatg	atgacatgac	tcttcgggtt	600
gaaggaggtg	gctattaccg	agctgaattc	agaagttctt	acaaggaaa	gcaactcaatc	660
aacatgccag	actttcactt	catagaccac	cgcattgaga	ttatggagca	tgacgaagac	720
tacaaccatg	ttaagctgcg	tgaagtagcc	catgctcg	actctccgct	gccttctgt	780
cactaa						786

<210> 22

<211> 261

<212> PRT

<213> Unknown

<220>

<223> Obtained from an environmental sample

<400> 22

Val	Met	Ala	Ile	Ser	Ala	Leu	Lys	Asn	Val	Ile	Ile	Ile	Ile		
1				5			10			15					
Tyr	Ser	Cys	Ser	Thr	Ser	Ala	Asp	Ser	Ser	Asn	Ser	Tyr	Ser	Gly	Ser
				20			25			30					
Ser	Phe	Ala	Asn	Gly	Ile	Ala	Glu	Glu	Met	Met	Thr	Asp	Leu	His	Leu
				35			40			45					
Glu	Gly	Ala	Val	Asn	Gly	His	His	Phe	Thr	Ile	Lys	Gly	Glu	Gly	Gly
				50			55			60					
Gly	Tyr	Pro	Tyr	Glu	Gly	Val	Gln	Phe	Met	Ser	Leu	Glu	Val	Val	Asn
				65			70			75			80		
Gly	Ala	Pro	Leu	Pro	Phe	Ser	Phe	Asp	Ile	Leu	Thr	Pro	Ala	Phe	Met
				85			90			95					
Tyr	Gly	Asn	Arg	Val	Phe	Thr	Lys	Tyr	Pro	Lys	Glu	Ile	Pro	His	Tyr
				100			105			110					
Phe	Lys	Gln	Thr	Phe	Pro	Glu	Gly	Tyr	His	Trp	Glu	Arg	Ser	Ile	Pro
				115			120			125					
Phe	Gln	Asp	Gln	Ala	Ser	Cys	Thr	Val	Thr	Ser	His	Ile	Arg	Met	Lys
				130			135			140					
Glu	Glu	Glu	Glu	Arg	His	Phe	Leu	Leu	Asn	Val	Lys	Phe	Tyr	Cys	Val
				145			150			155			160		
Asn	Phe	Pro	Pro	Asn	Gly	Pro	Val	Met	Gln	Arg	Arg	Ile	Arg	Gly	Trp
				165			170			175					
Glu	Pro	Ser	Thr	Glu	Asn	Ile	Tyr	Pro	Arg	Asp	Glu	Phe	Leu	Glu	Gly

180	185	190	
His Asp Asp Met Thr Leu Arg Val	Glu Gly Gly	Tyr Tyr Arg Ala	
195	200	205	
Glu Phe Arg Ser Ser Tyr Lys	Gly Lys His Ser	Ile Asn Met Pro Asp	
210	215	220	
Phe His Phe Ile Asp His Arg Ile	Glu Ile Met	Glu His Asp Glu Asp	
225	230	235	240
Tyr Asn His Val Lys	Leu Arg Glu Val	Ala His Ala Arg Tyr Ser Pro	
	245	250	255
Leu Pro Ser Val His			
	260		

<210> 23

<211> 786

<212> DNA

<213> Unknown

<220>

<223> Obtained from an environmental sample

<400> 23

gtgatggcga tttccgctct aaagaacgtc	atcatcatcg	taatcatata	ctcctgcagc	60
actagtgtg attcgctgaa ctcttactct	ggatcctcct	tcgcgaatgg	gattgcagag	120
gaaatgatga ctgacctgca ttttagagggt	gctgttaacg	ggcaccaatt	tacaattaaa	180
ggcgaaggag gaggctaccc ttacgaggga	gtgcagttt	tgagcctcga	ggtagtcaat	240
gtgtccccctc ttccgttctc ttttgatatc	ttgacaccgg	cattcatgtt	tggcaacaga	300
gtgttccacca agtatccaaa agagatacca	gactattca	agcagacgtt	tcctgaaggg	360
tatcactggg aaagaagcat tccccttcaa	gatcaggcct	cgtgcacggt	aaccagccac	420
ataaggatga aagaggaaga ggagcggcat	tttcttcta	acgtcaaatt	ttactgttg	480
aattttcccc ccaatggtcc agtcatgcag	aggaggatac	ggggatggga	gccatccact	540
gagaacattt atccgcgtga tgaatttcta	gagggccatg	atgacatgac	tcttcgggtt	600
gaaggaggtg gctattaccg agctgaattc	agaagttctt	acaaaggaaa	gcactcaatc	660
aacatgccag actttcactt catagaccac	cgcattgaga	ttatggagca	tgacgaagac	720
tacaaccatg ttaagctgct	catgctcggtt	actctccgct	gccttctgtg	780
cactaa				786

<210> 24

<211> 261

<212> PRT

<213> Unknown

<220>

<223> Obtained from an environmental sample

<400> 24

Val Met Ala Ile Ser Ala Leu Lys Asn Val Ile Ile Ile Val Ile Ile				
1	5	10	15	
Tyr Ser Cys Ser Thr Ser Ala Asp Ser Ser Asn Ser Tyr Ser Gly Ser				
20	25	30		
Ser Phe Ala Asn Gly Ile Ala Glu Glu Met Met Thr Asp Leu His Leu				
35	40	45		
Glu Gly Ala Val Asn Gly His His Phe Thr Ile Lys Gly Glu Gly Gly				
50	55	60		
Gly Tyr Pro Tyr Glu Gly Val Gln Phe Met Ser Leu Glu Val Val Asn				
65	70	75	80	
Gly Ala Pro Leu Pro Phe Ser Phe Asp Ile Leu Thr Pro Ala Phe Met				
85	90	95		
Tyr Gly Asn Arg Val Phe Thr Lys Tyr Pro Lys Glu Ile Pro Asp Tyr				
100	105	110		
Phe Lys Gln Thr Phe Pro Glu Gly Tyr His Trp Glu Arg Ser Ile Pro				
115	120	125		
Phe Gln Asp Gln Ala Ser Cys Thr Val Thr Ser His Ile Arg Met Lys				
130	135	140		
Glu Glu Glu Arg His Phe Leu Leu Asn Val Lys Phe Tyr Cys Val				

145		150		155		160									
Asn	Phe	Pro	Pro	Asn	Gly	Pro	Val	Met	Gln	Arg	Arg	Ile	Arg	Gly	Trp
					165				170					175	
Glu	Pro	Ser	Thr	Glu	Asn	Ile	Tyr	Pro	Arg	Asp	Glu	Phe	Leu	Glu	Gly
					180				185					190	
His	Asp	Asp	Met	Thr	Leu	Arg	val	Glu	Gly	Gly	Gly	Tyr	Tyr	Arg	Ala
					195			200				205			
Glu	Phe	Arg	Ser	Ser	Tyr	Lys	Gly	Lys	His	Ser	Ile	Asn	Met	Pro	Asp
					210			215			220				
Phe	His	Phe	Ile	Asp	His	Arg	Ile	Glu	Ile	Met	Glu	His	Asp	Glu	Asp
					225			230			235			240	
Tyr	Asn	His	Val	Lys	Leu	Arg	Glu	Val	Ala	His	Ala	Arg	Tyr	Ser	Pro
					245				250					255	
Leu	Pro	Ser	Val	His											
					260										

<210> 25

<211> 783

<212> DNA

<213> Unknown

<220>

<223> Obtained from an environmental sample

<400> 25

atggcgattt	ccgctctaaa	gaacgtcatc	atcatcgtaa	tcatatactc	ccgcagca	cact	60
agtgtctgatt	cgtcgaaact	ttactctgga	tcctccttcg	cgaatggat	tgcagaggaa		120
atgtatgtcg	acctgcattt	agagggtgct	gttaacgggc	accacttac	aattaaaggc		180
gaaggaggag	gctaccctta	cgagggagtg	cagtttatga	gcctcgagg	agtcaatgg		240
gccccctttc	cgttctcttt	tgatatcttg	acaccggcat	tcatgtatgg	caacagagt		300
ttcaccaagt	atccaaaaga	gataccagac	tatttcaagc	agacgtttcc	tgaagggtat		360
cactggaaa	gaagcattcc	cttccaagat	caggcctcg	gcacggtaac	cagccacata		420
aggatgaaag	aggaagagga	gcggcatttt	cttcttaacg	tcaaatttt	ctgtgtgaat		480
tttcccccca	atggccatgt	catgcagagg	aggataccgg	gatgggagcc	atccactgag		540
aacattttatc	cgcgtgtatga	atttcttagag	ggccatgtatg	acatgactct	tcgggttgaa		600
ggaggtggct	attaccggac	tgaattcaga	agttcttaca	aagaaaagca	ctcaatcaac		660
atcccgact	ttcacttcat	agaccaccgc	attgagatta	tggagcatga	cgaagactac		720
aaccatgtta	agctgcgtga	agttagcctat	gctcgtaact	ctccgctgcc	ttctgtgcac		780
							783

<210> 26

<211> 260

<212> PRT

<213> Unknown

<220>

<223> Obtained from an environmental sample

<400> 26

Met	Ala	Ile	Ser	Ala	Leu	Lys	Asn	Val	Ile	Ile	Ile	Val	Ile	Ile	Tyr
1					5				10				15		
Ser	Arg	Ser	Thr	Ser	Ala	Asp	Ser	Ser	Asn	Ser	Tyr	Ser	Gly	Ser	Ser
									20			25		30	
Phe	Ala	Asn	Gly	Ile	Ala	Glu	Glu	Met	Met	Thr	Asp	Leu	His	Leu	Glu
									35			40		45	
Gly	Ala	Val	Asn	Gly	His	His	Phe	Thr	Ile	Lys	Gly	Glu	Gly	Gly	Gly
									50			55		60	
Tyr	Pro	Tyr	Glu	Gly	Val	Gln	Phe	Met	Ser	Leu	Glu	Val	Val	Asn	Gly
									65			70		75	
Ala	Pro	Leu	Pro	Phe	Ser	Phe	Asp	Ile	Leu	Thr	Pro	Ala	Phe	Met	Tyr
									85			90		95	
Gly	Asn	Arg	Val	Phe	Thr	Lys	Tyr	Pro	Lys	Glu	Ile	Pro	Asp	Tyr	Phe
									100			105		110	
Lys	Gln	Thr	Phe	Pro	Glu	Gly	Tyr	His	Trp	Glu	Arg	Ser	Ile	Pro	Phe

Gln Asp Gln Ala Ser Cys Thr Val Thr Ser His Ile Arg Met Lys Glu 115 130	120 135	125 140
Glu Glu Glu Arg His Phe Leu Leu Asn Val Lys Phe Tyr Cys Val Asn 145	150	155
Phe Pro Pro Asn Gly Pro Val Met Gln Arg Arg Ile Arg Gly Trp Glu 165	170	175
Pro Ser Thr Glu Asn Ile Tyr Pro Arg Asp Glu Phe Leu Glu Gly His 180	185	190
Asp Asp Met Thr Leu Arg Val Glu Gly Gly Tyr Tyr Arg Ala Glu 195	200	205
Phe Arg Ser Ser Tyr Lys Gly Lys His Ser Ile Asn Met Pro Asp Phe 210	215	220
His Phe Ile Asp His Arg Ile Glu Ile Met Glu His Asp Glu Asp Tyr 225	230	235
Asn His Val Lys Leu Arg Glu Val Ala Tyr Ala Arg Tyr Ser Pro Leu 245	250	255
Pro Ser Val His 260		

<210> 27

<211> 684

<212> DNA

<213> Artificial Sequence

<220>

<223> Synthetically generated

<400> 27

atgagtcatt ccaagagtgt gatcaaggac gaaatgttca tcaagattca tctggaggc acttttaacg gccacaaatt tgagatcgaa ggggagggaa acgaaaaacc ttacgcagga acaatTTTg taaaacttgt agtgacgaaa ggcgggcctc tgccgtttgg ttggcatata ttgtcaccac aattacagta tggaaacaag tcattcgta gctaccccagc cgatataacca gactatatca agctgtcctt tcctgagggc tttacctggg agcgaataat gacttttag gacgggggcg tatgttgcatt cacaagcgac atcagtatga aaagtaacaa ctgttttttc tatgacatta agttcactgg catgaacttt cctcctaatt gtccagtggc gcagaaaaag acaacaggat gggagccatc cactgaacga ttgtatctt ggcacgggt gctgacggga gatatccaca agactctgaa acttagcggt ggcggccatt acacatgtgt cttaaaact atttacagat ccaagaagaa cctcacgctt ccggatttgct tctattatgt agacacccaaa cttgatattc ggaagttcga cgaaaattac atcaacgtcg agcaggacga gattgctaca gctcgccatc atgggctgaa gtag	60 120 180 240 300 360 420 480 540 600 660 684
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<210> 28

<211> 227

<212> PRT

<213> Artificial Sequence

<220>

<223> Synthetically generated

<400> 28

Met Ser His Ser Lys Ser Val Ile Lys Asp Glu Met Phe Ile Lys Ile 1 5 10 15	
His Leu Glu Gly Thr Phe Asn Gly His Lys Phe Glu Ile Glu Gly Glu 20 25 30	
Gly Asn Gly Lys Pro Tyr Ala Gly Thr Asn Phe Val Lys Leu Val Val 35 40 45	
Thr Lys Gly Gly Pro Leu Pro Phe Gly Trp His Ile Leu Ser Pro Gln 50 55 60	
Leu Gln Tyr Gly Asn Lys Ser Phe Val Ser Tyr Pro Ala Asp Ile Pro 65 70 75 80	
Asp Tyr Ile Lys Leu Ser Phe Pro Glu Gly Phe Thr Trp Glu Arg Ile 85 90 95	
Met Thr Phe Glu Asp Gly Gly Val Cys Cys Ile Thr Ser Asp Ile Ser	

	100	105	110
Met Lys Ser Asn Asn Cys Phe Phe	Tyr Asp Ile Lys Phe Thr Gly Met		
115	120	125	
Asn Phe Pro Pro Asn Gly Pro Val Val Gln Lys Lys	Thr Thr Gly Trp		
130	135	140	
Glu Pro Ser Thr Glu Arg Leu Tyr Leu Arg Asp Gly Val Leu Thr Gly			
145	150	155	160
Asp Ile His Lys Thr Leu Lys Leu Ser Gly Gly His Tyr Thr Cys			
165	170	175	
Val Phe Lys Thr Ile Tyr Arg Ser Lys Lys Asn Leu Thr Leu Pro Asp			
180	185	190	
Cys Phe Tyr Tyr Val Asp Thr Lys Leu Asp Ile Arg Lys Phe Asp Glu			
195	200	205	
Asn Tyr Ile Asn Val Glu Gln Asp Glu Ile Ala Thr Ala Arg His His			
210	215	220	
Gly Leu Lys			
225			

<210> 29

<211> 687

<212> DNA

<213> Artificial Sequence

<220>

<223> Synthetically generated

<400> 29

atgaaggggg tgaaggaagt aatgaagatc agtctggaga tggactgcac tggtaacggc	60
gacaattta agatcaactgg ggatggaaca ggagaacctt acgaaggaac acagactta	120
catcttacag agaaggaagg caagccctcg acgttttctt tcgatgtatt gacaccagca	180
tttcagttatg gaaaccgtac attcacccaa tacccaggca atataccaga cttttcaag	240
cagaccgttt ctggtgccgg gtatacctgg gagcgaaaaa tgacttatga ggacgggggc	300
ataagtaacg tccgaagcga catcagtgtg aaaggtgact ctttctacta taagattcac	360
ttcactggcg agtttccctcc tcatggtcca gtgatgcaga gaaagacagt aaaatggag	420
ccatccactg aagtaatgtt tggtgacgac aagagtgacg gtgtgctgaa gggagatgtc	480
aacatggctc tggccttaa agatggccgc catttgagag ttgactttaa cacttcttac	540
ataccgaaga agaaggcgtca gaatatgcct gactaccatt ttatagacca ccgcatttag	600
attctggca acccagaaga caagccgtc aagctgtacg agtgtgctgt agctcgctat	660
tctctgctgc ctgagaagaa caagtag	687

<210> 30

<211> 228

<212> PRT

<213> Artificial Sequence

<220>

<223> Synthetically generated

<400> 30

Met Lys Gly Val Lys Glu Val Met Lys Ile Ser Leu Glu Met Asp Cys			
1	5	10	15
Thr Val Asn Gly Asp Lys Phe Lys Ile Thr Gly Asp Gly Thr Gly Glu			
20	25	30	
Pro Tyr Glu Gly Thr Gln Thr Leu His Leu Thr Glu Lys Glu Gly Lys			
35	40	45	
Pro Leu Thr Phe Ser Phe Asp Val Leu Thr Pro Ala Phe Gln Tyr Gly			
50	55	60	
Asn Arg Thr Phe Thr Lys Tyr Pro Gly Asn Ile Pro Asp Phe Phe Lys			
65	70	75	80
Gln Thr Val Ser Gly Gly Tyr Thr Trp Glu Arg Lys Met Thr Tyr			
85	90	95	
Glu Asp Gly Gly Ile Ser Asn Val Arg Ser Asp Ile Ser Val Lys Gly			
100	105	110	
Asp Ser Phe Tyr Tyr Lys Ile His Phe Thr Gly Glu Phe Pro Pro His			

Gly	Pro	Val	Met	Gln	Arg	Lys	Thr	Val	Lys	Trp	Glu	Pro	Ser	Thr	Glu
115							120					125			
130							135					140			
Val	Met	Tyr	Val	Asp	Asp	Lys	Ser	Asp	Gly	Val	Leu	Lys	Gly	Asp	Val
145							150					155			160
Asn	Met	Ala	Leu	Leu	Leu	Lys	Asp	Gly	Arg	His	Leu	Arg	Val	Asp	Phe
							165					170			175
Asn	Thr	Ser	Tyr	Ile	Pro	Lys	Lys	Val	Glu	Asn	Met	Pro	Asp	Tyr	
							180					185			190
His	Phe	Ile	Asp	His	Arg	Ile	Glu	Ile	Leu	Gly	Asn	Pro	Glu	Asp	Lys
							195					200			205
Pro	Val	Lys	Leu	Tyr	Glu	Cys	Ala	Val	Ala	Arg	Tyr	Ser	Leu	Leu	Pro
							210					215			220
Glu	Lys	Asn	Lys												
225															

<210> 31

<211> 786

<212> DNA

<213> Artificial Sequence

<220>

<223> Synthetically generated

<400> 31

atgatggcga	tttccgctct	aaagaacgtc	atcatcatcg	taatcatata	ctcctgcagc	60
actagtgtc	attcgtcgaa	ctcttactct	ggatcctcct	tcgcgaatgg	gattgcggaa	120
gaaatgatga	ccgatctgca	tctggagggc	gctgttaacg	gccaccactt	tacgatcaaa	180
ggggaggagg	gaggatacc	ttacaagagga	gtacagttt	tgtcttta	agtggtaat	240
ggcgcgcctc	tgccgttttc	tttcgatata	ttgacaccag	catttatgtt	tggaaaccgt	300
gtattcacca	aatacccaaa	agagatacca	gactatttca	agcagacctt	tcctgaaggc	360
tatcactggg	agcgaagcat	tcctttcaa	gaccaggcct	catgtaccgt	cacaagccac	420
atcaggatga	aagaggaaga	ggagcggcat	ttccctccctt	acgttaaatt	ctattgcgtg	480
aattttcctc	ctaatggtcc	agtgtatgcag	aggaggatac	gaggatggga	gccatccact	540
gaaaacattt	atcctcgca	cgaatttctg	gagggacatg	acgacatgac	tctgcggggt	600
gaaggtggcg	gctattacag	agctgaattt	agaagttctt	acaaaggcaa	gcactcgatc	660
aacatgcccgg	atttccattt	tatagaccac	cgcattgaga	ttatggagca	tgacgaggac	720
tacaaccatg	tcaagctg	cgagggtgct	catgctcgct	atttcccgct	gccttcgggt	780
cactag						786

<210> 32

<211> 261

<212> PRT

<213> Artificial Sequence

<220>

<223> Synthetically generated

<400> 32

Met	Met	Ala	Ile	Ser	Ala	Leu	Lys	Asn	Val	Ile	Ile	Ile	Ile	Ile	
1			5			10						15			
Tyr	Ser	Cys	Ser	Thr	Ser	Ala	Asp	Ser	Ser	Asn	Ser	Tyr	Ser	Gly	Ser
												20		25	30
Ser	Phe	Ala	Asn	Gly	Ile	Ala	Glu	Glu	Met	Met	Thr	Asp	Leu	His	Leu
												35		40	45
Glu	Gly	Ala	Val	Asn	Gly	His	His	Phe	Thr	Ile	Lys	Gly	Glu	Gly	Gly
												50		55	60
Gly	Tyr	Pro	Tyr	Glu	Gly	Val	Gln	Phe	Met	Ser	Leu	Glu	Val	Val	Asn
												65		70	75
Gly	Ala	Pro	Leu	Pro	Phe	Ser	Phe	Asp	Ile	Leu	Thr	Pro	Ala	Phe	Met
												85		90	95
Tyr	Gly	Asn	Arg	Val	Phe	Thr	Lys	Tyr	Pro	Lys	Glu	Ile	Pro	Asp	Tyr
												100		105	110
Phe	Lys	Gln	Thr	Phe	Pro	Glu	Gly	Tyr	His	Trp	Glu	Arg	Ser	Ile	Pro

Phe Gln Asp Gln Ala Ser Cys	115 130	Thr Val Thr Ser His Ile Arg Met Lys	120 135 140	125
Glu Glu Glu Arg His Phe Leu Leu Asn Val Lys Phe Tyr Cys Val				
145	150	155	160	
Asn Phe Pro Pro Asn Gly Pro Val Met Gln Arg Arg Ile Arg Gly Trp				
165	170	175		
Glu Pro Ser Thr Glu Asn Ile Tyr Pro Arg Asp Glu Phe Leu Glu Gly				
180	185	190		
His Asp Asp Met Thr Leu Arg Val Glu Gly Gly Tyr Tyr Arg Ala				
195	200	205		
Glu Phe Arg Ser Ser Tyr Lys Gly Lys His Ser Ile Asn Met Pro Asp				
210	215	220		
Phe His Phe Ile Asp His Arg Ile Glu Ile Met Glu His Asp Glu Asp				
225	230	235	240	
Tyr Asn His Val Lys Leu Arg Glu Val Ala His Ala Arg Tyr Ser Pro				
245	250	255		
Leu Pro Ser Val His				
260				

<210> 33

<211> 729

<212> DNA

<213> Artificial Sequence

<220>

<223> Synthetically generated

<400> 33

atgaaggggg tgaaggaagt aatgaagatc agtctggaga tggactgcac ttttaacggc	60
gacaattta cgatcaaagg ggaaggagga ggataccctt acgaaggaac acagacttta	120
catcttacag agaaggaagg caaggctctg ccgttttctt tcgatatatatt gacaccagca	180
tttatgtatg gaaaccgtgt attcacaaa tacccaaaag agataccaga ctatttcaag	240
cagaccttc ctgaaggcta tcactggag cgaaaaatga cttatgagga cgggggcata	300
agtaacgtcc gaagcgacat cagtgtaaa ggtgactctt tctactataa gattcacttc	360
actggcgagt ttccctctca tggccagtg atgcagagaa agacagtaaa atgggagcca	420
tccactgaac gattgtatct tcgcgacggt gtgctgacgg gagatgtcaa catggctctg	480
ttgcttaaag atggcggcca ttacacatgt gtctttaaa ctatttacag atccaagaag	540
aaggtcgaga atatgcctga ctaccattt atagaccacc gcattgagat tatggagcat	600
gacgaggact acaaccatgt caagctgcgc gagtgtgctg tagctcgcta ttctctgctg	660
cctgagaaga acaagggtaa gcctatccc aaccctctcc tcggactcga ttctacgcgt	720
accggttag	729

<210> 34

<211> 242

<212> PRT

<213> Artificial Sequence

<220>

<223> Synthetically generated

<400> 34

Met Lys Gly Val Lys Glu Val Met Lys Ile Ser Leu Glu Met Asp Cys	
1 5 10 15	
Thr Val Asn Gly Asp Lys Phe Thr Ile Lys Gly Glu Gly Gly Tyr	
20 25 30	
Pro Tyr Glu Gly Thr Gln Thr Leu His Leu Thr Glu Lys Glu Gly Lys	
35 40 45	
Pro Leu Pro Phe Ser Phe Asp Ile Leu Thr Pro Ala Phe Met Tyr Gly	
50 55 60	
Asn Arg Val Phe Thr Lys Tyr Pro Lys Glu Ile Pro Asp Tyr Phe Lys	
65 70 75 80	
Gln Thr Phe Pro Glu Gly Tyr His Trp Glu Arg Lys Met Thr Tyr Glu	
85 90 95	

Asp Gly Gly Ile Ser Asn Val Arg Ser Asp Ile Ser Val Lys Gly Asp
 100 105 110
 Ser Phe Tyr Tyr Lys Ile His Phe Thr Gly Glu Phe Pro Pro His Gly
 115 120 125
 Pro Val Met Gln Arg Lys Thr Val Lys Trp Glu Pro Ser Thr Glu Arg
 130 135 140
 Leu Tyr Leu Arg Asp Gly Val Leu Thr Gly Asp Val Asn Met Ala Leu
 145 150 155 160
 Leu Leu Lys Asp Gly Gly His Tyr Thr Cys Val Phe Lys Thr Ile Tyr
 165 170 175
 Arg Ser Lys Lys Val Glu Asn Met Pro Asp Tyr His Phe Ile Asp
 180 185 190
 His Arg Ile Glu Ile Met Glu His Asp Glu Asp Tyr Asn His Val Lys
 195 200 205
 Leu Arg Glu Cys Ala Val Ala Arg Tyr Ser Leu Leu Pro Glu Lys Asn
 210 215 220
 Lys Gly Lys Pro Ile Pro Asn Pro Leu Leu Gly Leu Asp Ser Thr Arg
 225 230 235 240
 Thr Gly

<210> 35

<211> 741

<212> DNA

<213> Artificial Sequence

<220>

<223> Synthetically generated

<400> 35

atgagtcatt	ccaagagtgt	gatcaaggac	gaaatgttca	tcaagattca	tctggaaaggc	60
acttttaacg	gccacaaaatt	tgagatcgaa	ggggagggaa	acggaaaaacc	ttacgcagga	120
gtacagttt	tgtctcttga	agtggtgaat	ggcgcgcctc	tgccgtttgg	ttggcatata	180
ttgtcaccag	catttatgtt	tggaaaccgt	gtattcacca	aatacccaa	agagatacca	240
gactatttca	agcagacccctt	tcctgaaggc	tatcaactggg	agcgaataat	gacttttgag	300
gacgggggcg	tatgttgcat	cacaagcgcac	atcagtgtga	aagggtgactc	tttcttctat	360
gacattaagt	tcactggcat	gaactttcct	cctcatggtc	cagtgtatgc	gagaaagaca	420
gtaaaatggg	agccatccac	tgaacgattt	tatttccgcg	acggtgtgct	gacgggacat	480
gacgacatga	ctctgcgggtt	tgaaggtggc	ggccattaca	catgtgtctt	taaaactatt	540
tacagatcca	agaagaaggt	cgagaatatg	cctgactacc	attttataga	ccaccgcatt	600
gagattctgg	gcaacccaga	agacaagccg	gtcaagctgt	acgagattgc	tacagctcgc	660
catcatgggc	tgaagggtaa	gcctatccct	aaccctctcc	tcggactcga	ttctacgcgt	720
accgggttag	ctcgaggggg	g				741

<210> 36

<211> 247

<212> PRT

<213> Artificial Sequence

<220>

<223> Synthetically generated

<400> 36

Met Ser His Ser Lys Ser Val Ile Lys Asp Glu Met Phe Ile Lys Ile						
1	5	10	15			
His Leu Glu Gly Thr Phe Asn Gly His Lys Phe Glu Ile Glu Gly Glu						
20	25	30				
Gly Asn Gly Lys Pro Tyr Ala Gly Val Gln Phe Met Ser Leu Glu Val						
35	40	45				
Val Asn Gly Ala Pro Leu Pro Phe Gly Trp His Ile Leu Ser Pro Ala						
50	55	60				
Phe Met Tyr Gly Asn Arg Val Phe Thr Lys Tyr Pro Lys Glu Ile Pro						
65	70	75	80			
Asp Tyr Phe Lys Gln Thr Phe Pro Glu Gly Tyr His Trp Glu Arg Ile						

Met	Thr	Phe	Glu	Asp	Gly	Gly	Val	Cys	Cys	Ile	Thr	Ser	Asp	Ile	Ser
85								90					95		
100								105					110		
Val	Lys	Gly	Asp	Ser	Phe	Phe	Tyr	Asp	Ile	Lys	Phe	Thr	Gly	Met	Asn
115							120					125			
Phe	Pro	Pro	His	Gly	Pro	Val	Met	Gln	Arg	Lys	Thr	Val	Lys	Trp	Glu
130						135					140				
Pro	Ser	Thr	Glu	Arg	Leu	Tyr	Leu	Arg	Asp	Gly	Val	Leu	Thr	Gly	His
145						150				155				160	
Asp	Asp	Met	Thr	Leu	Arg	Val	Glu	Gly	Gly	His	Tyr	Thr	Cys	Val	
165						170							175		
Phe	Lys	Thr	Ile	Tyr	Arg	Ser	Lys	Lys	Val	Glu	Asn	Met	Pro	Asp	
180						185					190				
Tyr	His	Phe	Ile	Asp	His	Arg	Ile	Glu	Ile	Leu	Gly	Asn	Pro	Glu	Asp
195						200					205				
Lys	Pro	Val	Lys	Leu	Tyr	Glu	Ile	Ala	Thr	Ala	Arg	His	His	Gly	Leu
210						215					220				
Lys	Gly	Lys	Pro	Ile	Pro	Asn	Pro	Leu	Leu	Gly	Leu	Asp	Ser	Thr	Arg
225						230					235				240
Thr	Gly	Leu	Ala	Arg	Gly	Gly									
						245									

<210> 37

<211> 720

<212> DNA

<213> Artificial Sequence

<220>

<223> Synthetically generated

<400> 37

atgaagggggg	tgaaggaagt	aatgaagatc	agtctggaga	tggagggcgc	tgttaacggc	60
caccactttg	agatcgaagg	ggagggaaac	ggaaaacctt	acgcaggaac	acagacttta	120
cattttacag	agaaggaaagg	caagcctctg	acgttttctt	tcgatgtatt	gacaccagca	180
tttatgtatg	gaaaccgtgt	attcacaaa	tacccaaaag	agataccaga	ctatttcaag	240
cagacctttc	ctgaaggcta	tcactgggag	cgaagcattc	ctttcaaga	ccaggccctca	300
tgtaccgtca	caagccacat	caggatgaaa	gaggaagagg	agccgcattt	ctactataag	360
attcaattca	ctggcgagtt	tcctcctcat	ggtccagtga	tgcagagaaa	gacagtaaaa	420
tgggagccat	ccactgaacg	attgtatctt	cgcgacggtg	tgctgacggg	agatgtcaac	480
atggctctgt	tgcttaaaga	tggcgctat	tacagactg	aatttagaa	ttcttacaaa	540
ggcaagcact	cgatcaacat	gccggatttc	cattttatag	accaccgcat	tgagattctg	600
ggcaacccag	aagacaagcc	ggtaagctg	tacgagattg	ctacagctcg	ccatcatggg	660
ctgaagggtt	agcctatccc	taaccctctc	ctcggactcg	attctacgctg	taccggtag	720

<210> 38

<211> 239

<212> PRT

<213> Artificial Sequence

<220>

<223> Synthetically generated

<400> 38

Met	Lys	Gly	Val	Lys	Glu	Val	Met	Lys	Ile	Ser	Leu	Glu	Met	Glu	Gly
1				5			10					15			
Ala	Val	Asn	Gly	His	His	Phe	Glu	Ile	Glu	Gly	Gly	Asn	Gly	Lys	
				20			25					30			
Pro	Tyr	Ala	Gly	Thr	Gln	Thr	Leu	His	Leu	Thr	Glu	Lys	Glu	Gly	Lys
				35			40					45			
Pro	Leu	Thr	Phe	Ser	Phe	Asp	Val	Leu	Thr	Pro	Ala	Phe	Met	Tyr	Gly
				50			55					60			
Asn	Arg	Val	Phe	Thr	Lys	Tyr	Pro	Lys	Glu	Ile	Pro	Asp	Tyr	Phe	Lys
				65			70					75			80
Gln	Thr	Phe	Pro	Glu	Gly	Tyr	His	Trp	Glu	Arg	Ser	Ile	Pro	Phe	Gln

Asp Gln Ala Ser Cys Thr Val Thr Ser His Ile Arg Met Lys Glu Glu	85	90	95
100 Glu Glu Arg His Phe Tyr Tyr Lys Ile His Phe Thr Gly Glu Phe Pro	105	110	
115 120 125			
Pro His Gly Pro Val Met Gln Arg Lys Thr Val Lys Trp Glu Pro Ser	130	135	140
Thr Glu Arg Leu Tyr Leu Arg Asp Gly Val Leu Thr Gly Asp Val Asn	145	150	160
155 170 175			
Met Ala Leu Leu Leu Lys Asp Gly Gly Tyr Tyr Arg Ala Glu Phe Arg	165	180	190
Ser Ser Tyr Lys Gly Lys His Ser Ile Asn Met Pro Asp Phe His Phe	185		
Ile Asp His Arg Ile Glu Ile Leu Gly Asn Pro Glu Asp Lys Pro Val	195	200	205
Lys Leu Tyr Glu Ile Ala Thr Ala Arg His His Gly Leu Lys Gly Lys	210	215	220
Pro Ile Pro Asn Pro Leu Leu Gly Leu Asp Ser Thr Arg Thr Gly	225	230	235

<210> 39

<211> 738

<212> DNA

<213> Artificial Sequence

<220>

<223> Synthetically generated

<400> 39

atgagtcat ccaagagtgt gatcaaggac gaaaatgttca tcaagattca tctggaaaggc acttttaacg gccacaaaatt tgagatcgaa ggggagggaa acgaaaaacc ttacgcagga gtacagtttata tgcgtcttgc agtggtaat ggccgcgcctc tgcgtttgg ttggcatata ttgtcaccag catttatgttga tggaaaccgt gtattcacca aatacccaa agagatacca gactatttca agcagacccct tcctgaaggc tatcactggg agcgaataat gacttttag gacggggcg tatgttgcattt cacaagcgac atcagtgtga aaggtgactc tttcttctat gacattaagt tcactggcat gaactttcct cctcatgttc cagtgtatgc gagaagac gtaaaaatggg agccatccac tgaacgatttgc tatcttcgcg acggtgtgc gacgggacat gacgacatga ctctgcgggt tgaagggtgc ggccattaca catgtgtctt taaaactatt tagatcca agaagaaggt cgagaatatg cctgactacc atttataga ccaccgcatt gagattctgg gcaacccaga agacaagccg gtcaagctgt acgagattgc tacagctcgc catcatgggc tgaagggttaa gcctatccct aaccctctcc tcggactcga ttctacgcgt accggtagct cgaggagg	60 120 180 240 300 360 420 480 540 600 660 720 738
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<210> 40

<211> 246

<212> PRT

<213> Artificial Sequence

<220>

<223> Synthetically generated

<400> 40

Met Ser His Ser Lys Ser Val Ile Lys Asp Glu Met Phe Ile Lys Ile 1 5 10 15 His Leu Glu Gly Thr Phe Asn Gly His Lys Phe Glu Ile Glu Gly Glu 20 25 30 Gly Asn Gly Lys Pro Tyr Ala Gly Val Gln Phe Met Ser Leu Glu Val 35 40 45 Val Asn Gly Ala Pro Leu Pro Phe Gly Trp His Ile Leu Ser Pro Ala 50 55 60 Phe Met Tyr Gly Asn Arg Val Phe Thr Lys Tyr Pro Lys Glu Ile Pro 65 70 75 80 Asp Tyr Phe Lys Gln Thr Phe Pro Glu Gly Tyr His Trp Glu Arg Ile 85 90 95
--

Met Thr Phe Glu Asp Gly Gly Val Cys Cys Ile Thr Ser Asp Ile Ser
 100 105 110
 Val Lys Gly Asp Ser Phe Phe Tyr Asp Ile Lys Phe Thr Gly Met Asn
 115 120 125
 Phe Pro Pro His Gly Pro Val Met Gln Arg Lys Thr Val Lys Trp Glu
 130 135 140
 Pro Ser Thr Glu Arg Leu Tyr Leu Arg Asp Gly Val Leu Thr Gly His
 145 150 155 160
 Asp Asp Met Thr Leu Arg Val Glu Gly Gly His Tyr Thr Cys Val
 165 170 175
 Phe Lys Thr Ile Tyr Arg Ser Lys Lys Val Glu Asn Met Pro Asp
 180 185 190
 Tyr His Phe Ile Asp His Arg Ile Glu Ile Leu Gly Asn Pro Glu Asp
 195 200 205
 Lys Pro Val Lys Leu Tyr Glu Ile Ala Thr Ala Arg His His Gly Leu
 210 215 220
 Lys Gly Lys Pro Ile Pro Asn Pro Leu Leu Gly Leu Asp Ser Thr Arg
 225 230 235 240
 Thr Gly Ser Ser Arg Arg
 245

<210> 41

<211> 726

<212> DNA

<213> Artificial Sequence

<220>

<223> Synthetically generated

<400> 41

atgaaggggg	tgaaggaagt	aatgaagatc	agtctggaga	tggactgcac	tgttaacggc	60
gacaattttg	agatcgaaagg	ggagggaaac	ggaaaacctt	acgcaggagt	acagtttatg	120
tctcttgaag	tggtgaatgg	cgcgcctctg	ccgttttctt	tcgatatatt	gacaccacaa	180
ttacagtatg	gaaacaagtc	attcgtcagc	tacccaaaag	agataccaga	ctatttcaag	240
cagaccttgc	ctgaaggcta	tcactgggag	cgaagcattc	cttttcaaga	ccaggcctca	300
tgtacgtca	caagcgacat	cagtatgaaa	agtaacaact	gtttctacta	taagattcac	360
ttcactggcg	agtttcctcc	tcatggtcca	gtgatgcaga	gaaagacagt	aaaatgggag	420
ccatccactg	agtagaatgtg	tgttgacgac	aagagtgacg	gtgtgctgaa	gggacatgac	480
gacatgactc	tgcgggttga	aggtggccgc	catttgagag	ttgactttaa	cacttcttac	540
atacccaagc	actcgatcaa	catgccggat	ttccatttta	tagaccaccg	cattgatatt	600
cggaagttcg	acgaaaatta	catcaacgtc	gagcaggacg	agattgctac	agctcgccat	660
catgggctga	agggtaaagcc	tatccctaac	cctctcctcg	gactcgattc	tacgcgtacc	720
ggtag						726

<210> 42

<211> 241

<212> PRT

<213> Artificial Sequence

<220>

<223> Synthetically generated

<400> 42

Met Lys Gly Val Lys Glu Val Met Lys Ile Ser Leu Glu Met Asp Cys						
1	5	10	15			
Thr Val Asn Gly Asp Lys Phe Glu Ile Glu Gly Glu Gly Asn Gly Lys						
20	25	30				
Pro Tyr Ala Gly Val Gln Phe Met Ser Leu Glu Val Val Asn Gly Ala						
35	40	45				
Pro Leu Pro Phe Ser Phe Asp Ile Leu Thr Pro Gln Leu Gln Tyr Gly						
50	55	60				
Asn Lys Ser Phe Val Ser Tyr Pro Lys Glu Ile Pro Asp Tyr Phe Lys						
65	70	75	80			
Gln Thr Phe Pro Glu Gly Tyr His Trp Glu Arg Ser Ile Pro Phe Gln						

	85		90		95	
Asp Gln Ala Ser Cys Thr Val Thr Ser Asp Ile Ser Met Lys Ser Asn						
100	105				110	
Asn Cys Phe Tyr Tyr Lys Ile His Phe Thr Gly Glu Phe Pro Pro His						
115	120				125	
Gly Pro Val Met Gln Arg Lys Thr Val Lys Trp Glu Pro Ser Thr Glu						
130	135				140	
Val Met Tyr Val Asp Asp Lys Ser Asp Gly Val Leu Lys Gly His Asp						
145	150				155	
Asp Met Thr Leu Arg Val Glu Gly Arg His Leu Arg Val Asp Phe						
165	170				175	
Asn Thr Ser Tyr Ile Pro Lys His Ser Ile Asn Met Pro Asp Phe His						
180	185				190	
Phe Ile Asp His Arg Ile Asp Ile Arg Lys Phe Asp Glu Asn Tyr Ile						
195	200				205	
Asn Val Glu Gln Asp Glu Ile Ala Thr Ala Arg His His Gly Leu Lys						
210	215				220	
Gly Lys Pro Ile Pro Asn Pro Leu Leu Gly Leu Asp Ser Thr Arg Thr						
225	230				235	
Gly						240

<210> 43
<211> 720
<212> DNA
<213> Artificial Sequence

<220>
<223> Synthetically generated

<400> 43

atgaaggggg	tgaaggaagt	aatgaagatc	agtctggaga	tggactgcac	tgttaacggc	60
gacaaattta	cgatcaaagg	ggaaggagga	ggataccctt	acgaaggaac	aaattttgtt	120
aaacctttag	tgacgaaagg	cgggcctctg	acgttttctt	tcgatgtatt	gacaccagca	180
tttatgtatg	gaaaccgtgt	attcacaaaa	tacccaaaag	agataccaga	ctatttcaag	240
cagaccttc	ctgaaggcta	tcactggag	cgaagcatc	cttttcaaga	ccaggcctca	300
tgtaccgtca	caagcgcacat	cagtataaaa	agtaacaact	gtttcttcta	tgacattaag	360
ttcaactggca	tgaactttcc	tcctcatggt	ccagtgtatgc	agagaaagac	agtaaaaatgg	420
gagccatcca	ctgaaaaacat	ttatcctcgc	gacgaatttc	tggagggaga	tgtcaacatg	480
gctctgttgc	ttaaagatgg	ccgccatttg	agagttgact	ttaacacttc	ttacataaccc	540
aagcactcga	tcaacatgcc	ggatttccat	tttataagacc	accgcattga	tattcggaa	600
ttcgacgaaa	attacatcaa	cgtcgagcag	gacgagattg	ctacagctcg	ccatcatggg	660
ctgaagggtt	agcctatccc	taaccctctc	ctcggactcg	attctacgcg	taccggtag	720

<210> 44
<211> 239
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetically generated

<400> 44

Met Lys Gly Val Lys Glu Val Met Lys Ile Ser Leu Glu Met Asp Cys						
1	5		10		15	
Thr Val Asn Gly Asp Lys Phe Thr Ile Lys Gly Glu Gly Gly Tyr						
20	25				30	
Pro Tyr Glu Gly Thr Asn Phe Val Lys Leu Val Val Thr Lys Gly Gly						
35	40				45	
Pro Leu Thr Phe Ser Phe Asp Val Leu Thr Pro Ala Phe Met Tyr Gly						
50	55				60	
Asn Arg Val Phe Thr Lys Tyr Pro Lys Glu Ile Pro Asp Tyr Phe Lys						
65	70				75	
Gln Thr Phe Pro Glu Gly Tyr His Trp Glu Arg Ser Ile Pro Phe Gln						80

Asp	Gln	Ala	Ser	85	Cys	Thr	Val	Thr	Ser	Asp	Ile	Ser	Met	Lys	Ser	Asn
				100					105					110		
Asn	Cys	Phe	Phe	Tyr	Asp	Ile	Lys	Phe	Thr	Gly	Met	Asn	Phe	Pro	Pro	
				115			120			125						
His	Gly	Pro	Val	Met	Gln	Arg	Lys	Thr	Val	Lys	Trp	Glu	Pro	Ser	Thr	
				130		135				140						
Glu	Asn	Ile	Tyr	Pro	Arg	Asp	Glu	Phe	Leu	Glu	Gly	Asp	Val	Asn	Met	
				145		150				155				160		
Ala	Leu	Leu	Leu	Lys	Asp	Gly	Arg	His	Leu	Arg	Val	Asp	Phe	Asn	Thr	
				165			170			175						
Ser	Tyr	Ile	Pro	Lys	His	Ser	Ile	Asn	Met	Pro	Asp	Phe	His	Phe	Ile	
				180			185			190						
Asp	His	Arg	Ile	Asp	Ile	Arg	Lys	Phe	Asp	Glu	Asn	Tyr	Ile	Asn	Val	
				195		200				205						
Glu	Gln	Asp	Glu	Ile	Ala	Thr	Ala	Arg	His	His	Gly	Leu	Lys	Gly	Lys	
				210		215			220							
Pro	Ile	Pro	Asn	Pro	Leu	Leu	Gly	Leu	Asp	Ser	Thr	Arg	Thr	Gly		
				225		230			235							

<210> 45

<211> 738

<212> DNA

<213> Artificial Sequence

<220>

<223> Synthetically generated

<400> 45

atgagtcatt	ccaagagtgt	gatcaaggac	gaaatgttca	tcaagattca	tctggaggc	60
acttttaacg	gccacaaatt	tgagatcgaa	ggggagggaa	acgaaaacc	ttacgcagga	120
acacagactt	tacatcttac	agagaaggaa	ggcaagcctc	tgcgcgtttc	tttcgatata	180
ttgacaccac	aattacagta	tgaaaaacaag	tcattcgtca	gctacccagc	cgatatacca	240
gactatatca	agctgtcctt	tcctgagggc	tttacctggg	agcgaagcat	tcctttcaa	300
gaccaggcct	catgtaccgt	cacaagcgac	atcagtatga	aaagtaacaa	ctgtttctac	360
tataagattc	acttcactgg	cgagtttcct	cctcatgtc	cagtgtatgc	gagaaagaca	420
gtaaaatggg	agccatccac	tgaagtaatg	tatgttgacg	acaagagtga	cggtgtgctg	480
aaggagatg	tcaacatggc	tctgttgctt	aaagatggcc	gccatttgag	agttgacttt	540
aacactctt	acatacccaa	gaagaagggtc	gagaatatgc	ctgactacca	ttttatagac	600
caccgcattg	agattctggg	caacccagaa	gacaagccgg	tcaagctgt	cgagattgt	660
acagctcgcc	atcatgggct	gaagggtaag	cctatcccta	accctctcct	cggactcgt	720
tctacgcgt	ccggtag					738

<210> 46

<211> 245

<212> PRT

<213> Artificial Sequence

<220>

<223> Synthetically generated

<400> 46

Met	Ser	His	Ser	Lys	Ser	Val	Ile	Lys	Asp	Glu	Met	Phe	Ile	Lys	Ile
1				5			10		15						
His	Leu	Glu	Gly	Thr	Phe	Asn	Gly	His	Lys	Phe	Glu	Ile	Glu	Gly	Glu
				20			25		30						
Gly	Asn	Gly	Lys	Pro	Tyr	Ala	Gly	Thr	Gln	Thr	Leu	His	Leu	Thr	Glu
				35			40		45						
Lys	Glu	Gly	Lys	Pro	Leu	Pro	Phe	Ser	Phe	Asp	Ile	Leu	Thr	Pro	Gln
				50			55		60						
Leu	Gln	Tyr	Gly	Asn	Lys	Ser	Phe	Val	Ser	Tyr	Pro	Ala	Asp	Ile	Pro
				65			70		75				80		
Asp	Tyr	Ile	Lys	Leu	Ser	Phe	Pro	Glu	Gly	Phe	Thr	Trp	Glu	Arg	Ser
				85			90		95						

Ile Pro Phe Gln Asp Gln Ala Ser Cys Thr Val Thr Ser Asp Ile Ser
 100 105 110
 Met Lys Ser Asn Asn Cys Phe Tyr Tyr Lys Ile His Phe Thr Gly Glu
 115 120 125
 Phe Pro Pro His Gly Pro Val Met Gln Arg Lys Thr Val Lys Trp Glu
 130 135 140
 Pro Ser Thr Glu Val Met Tyr Val Asp Asp Lys Ser Asp Gly Val Leu
 145 150 155 160
 Lys Gly Asp Val Asn Met Ala Leu Leu Lys Asp Gly Arg His Leu
 165 170 175
 Arg Val Asp Phe Asn Thr Ser Tyr Ile Pro Lys Lys Lys Val Glu Asn
 180 185 190
 Met Pro Asp Tyr His Phe Ile Asp His Arg Ile Glu Ile Leu Gly Asn
 195 200 205
 Pro Glu Asp Lys Pro Val Lys Leu Tyr Glu Ile Ala Thr Ala Arg His
 210 215 220
 His Gly Leu Lys Gly Lys Pro Ile Pro Asn Pro Leu Leu Gly Leu Asp
 225 230 235 240
 Ser Thr Arg Thr Gly
 245

<210> 47

<211> 603

<212> DNA

<213> Artificial Sequence

<220>

<223> Synthetically generated

<400> 47

atggcgccgc	ttctgcccgtt	ttctttcgat	atattgacac	cagcatttat	gtatggaaac	60
cgtgtattca	ccaaatacc	aaaagagata	ccagactatt	tcaagcagac	ctttcctgaa	120
ggcttatca	gggagcggaa	aatgacttat	gaggacgggg	gcataagtaa	cgtccgaagc	180
cacatcagg	tgaaagagga	agaggagcgg	catttcttct	atgacattaa	gttcactggc	240
atgaacttc	cgcctcatgg	tccagtatg	cagagaaaga	cagaaaaatg	ggagccatcc	300
actgaagtaa	tgtatgttga	cgacaagagt	gacgggtgtgc	tgaagggaca	tgacgacatg	360
actctgcggg	ttgaagggtgg	ccgccatttg	agagttgact	ttaacacttc	ttacataaccc	420
aagaagaacc	tcacgctcc	ggattgcttc	tattatgtag	acaccaaact	tgagattatg	480
gagcatgacg	aggactacaa	ccatgtcaag	ctgcgcgaga	ttgctacagc	tcgccccatcat	540
gggctgaagg	gtaaggctat	ccctaaccct	ctcctcgac	tcgattctac	gcgtaccggt	600
tag						603

<210> 48

<211> 200

<212> PRT

<213> Artificial Sequence

<220>

<223> Synthetically generated

<400> 48

Met Ala Arg Leu Leu Pro Phe Ser Phe Asp Ile Leu Thr Pro Ala Phe						
1	5	10	15			
Met Tyr Gly Asn Arg Val Phe Thr Lys Tyr Pro Lys Glu Ile Pro Asp						
20	25	30				
Tyr Phe Lys Gln Thr Phe Pro Glu Gly Tyr His Trp Glu Arg Lys Met						
35	40	45				
Thr Tyr Glu Asp Gly Gly Ile Ser Asn Val Arg Ser His Ile Arg Met						
50	55	60				
Lys Glu Glu Glu Arg His Phe Phe Tyr Asp Ile Lys Phe Thr Gly						
65	70	75	80			
Met Asn Phe Pro Pro His Gly Pro Val Met Gln Arg Lys Thr Val Lys						
85	90	95				
Trp Glu Pro Ser Thr Glu Val Met Tyr Val Asp Asp Lys Ser Asp Gly						

Val	Leu	Lys	100	Gly	His	Asp	Asp	Met	105	Thr	Leu	Arg	Val	Glu	Gly	Gly	Arg
			115					120					125				
His	Leu	Arg	Val	Asp	Phe	Asn	Thr	Ser	Tyr	Ile	Pro	Lys	Lys	Asn	Leu		
			130			135					140						
Thr	Leu	Pro	Asp	Cys	Phe	Tyr	Tyr	Val	Asp	Thr	Lys	Leu	Glu	Ile	Met		
			145		150				155				160				
Glu	His	Asp	Glu	Asp	Tyr	Asn	His	Val	Lys	Leu	Arg	Glu	Ile	Ala	Thr		
			165				170		175								
Ala	Arg	His	His	Gly	Leu	Lys	Gly	Lys	Pro	Ile	Pro	Asn	Pro	Leu	Leu		
			180				185		190								
Gly	Leu	Asp	Ser	Thr	Arg	Thr	Gly										
			195				200										

<210> 49

<211> 828

<212> DNA

<213> Artificial Sequence

<220>

<223> Synthetically generated

<400> 49

atgatggcga	tttccgctct	aaagaacgtc	atcatcatcg	taatcatata	ctcctgcagc	60
actagtgtg	attcgctgaa	ctcttactct	ggatcctcct	tgcgaaatgg	gattgcggaa	120
gaaatgatga	ccgatctgca	tctggactgc	actgttaacg	gcgcacaattt	tgagatcgaa	180
ggggaggggaa	acggaaaacc	ttacgcagga	gtacagtttta	tgtctcttga	agtggtaat	240
ggcgcgcctc	tgccgttttc	tttcgatata	ttgacaccac	aattacagta	tggaaacaag	300
tcattcgta	gctacccaa	agagatacca	gactattca	agcagacctt	tcctgaaggc	360
tatcactggg	agcgaagcat	tcctttcaa	gaccaggcct	catgtaccgt	cacaagcgac	420
atcagtgtga	aagggtactc	tttcttctat	gacattaagt	tcactggcat	gaactttcct	480
cctcatggtc	cagtgatgca	gagaaaagaca	gtaaaatggg	agccatccac	tgaagtaatg	540
tatgttgacg	acaagagtga	cgggtgtctg	aagggacatg	acgacatgac	tctgcggggtt	600
gaaggtggcc	gccatttgag	agttgacttt	aacacttctt	acatacccaa	gcactcgatc	660
aacatgccgg	atttccattt	tatagaccac	cgcattgaga	ttatggagca	tgacgaggac	720
tacaaccatg	tcaagctgcg	cgagattgct	acagctcgcc	atcatgggct	gaagggttaag	780
cctatcccta	accctctcct	cggactcgtat	tctacgcgta	ccggtag		828

<210> 50

<211> 275

<212> PRT

<213> Artificial Sequence

<220>

<223> Synthetically generated

<400> 50

Met	Met	Ala	Ile	Ser	Ala	Leu	Lys	Asn	Val	Ile							
1			5					10				15					
Tyr	Ser	Cys	Ser	Thr	Ser	Ala	Asp	Ser	Ser	Asn	Ser	Tyr	Ser	Gly	Ser		
				20				25				30					
Ser	Phe	Ala	Asn	Gly	Ile	Ala	Glu	Glu	Met	Met	Thr	Asp	Leu	His	Leu		
				35				40			45						
Asp	Cys	Thr	Val	Asn	Gly	Asp	Lys	Phe	Glu	Ile	Glu	Gly	Glu	Gly	Asn		
				50				55			60						
Gly	Lys	Pro	Tyr	Ala	Gly	Val	Gln	Phe	Met	Ser	Leu	Glu	Val	Val	Asn		
				65				70			75			80			
Gly	Ala	Pro	Leu	Pro	Phe	Ser	Phe	Asp	Ile	Leu	Thr	Pro	Gln	Leu	Gln		
				85				90			95						
Tyr	Gly	Asn	Lys	Ser	Phe	Val	Ser	Tyr	Pro	Lys	Glu	Ile	Pro	Asp	Tyr		
				100				105			110						
Phe	Lys	Gln	Thr	Phe	Pro	Glu	Gly	Tyr	His	Trp	Glu	Arg	Ser	Ile	Pro		
				115				120			125						
Phe	Gln	Asp	Gln	Ala	Ser	Cys	Thr	Val	Thr	Ser	Asp	Ile	Ser	Val	Lys		

130 Gly Asp Ser Phe Phe Tyr Asp Ile Lys Phe Thr	135 150 Met Gln Arg Lys Thr Val Lys Trp Glu Pro	140 155 Gly Met Asn Phe Pro
145 Pro His Gly Pro Val	160	160
165 Met Tyr Val Asp Asp Lys Ser Asp Gly Val Leu Lys Gly	170	175
180 His Asp Asp Met Thr Leu Arg Val Glu Gly Arg His Leu Arg Val	185	190
195 Asp Phe Asn Thr Ser Tyr Ile Pro Lys His Ser Ile Asn Met Pro Asp	200	205
210 Phe His Phe Ile Asp His Arg Ile Glu Ile Met Glu His Asp Glu Asp	215	220
225 Tyr Asn His Val Lys Leu Arg Glu Ile Ala Thr Ala Arg His His Gly	230	235
240 Leu Lys Gly Lys Pro Ile Pro Asn Pro Leu Leu Gly Leu Asp Ser Thr	245	255
255 Arg Thr Gly	260	270
275		

<210> 51

<211> 717

<212> DNA

<213> Artificial Sequence

<220>

<223> Synthetically generated

<400> 51

atgaagggggg tgaaggaagt aatgaagatc agtctggaga tggactgcac ttttaacggc	60
gacaatttg agatcgaagg ggaggaaac ggaaaacctt acgcaggagt acagtttatg	120
tctcttgaag tggtaatgg cgccctctg acgttttctt tcgtatgtatt gacaccagca	180
tttcagtatg gaaaccgtac attcaccaa tacccagccg atataccaga ctatataaag	240
ctgtcctttc ctgagggctt tacctggag cgaagcattc ctttcaaga ccaggcctca	300
tgtaccgtca caagcgacat cagtgtaaa ggtgacttt tcttctatga cattaagttc	360
actggcatga actttccccc taatggtcca gtgatgcaga ggaggatacg aggatgggag	420
ccatccactg aaaacattt tcctcgcgac gaatttctgg agggacatga cgacatgact	480
ctgcgggttg aagggtggcg ctattacaga gctgaattt aaatgttctt caaaggcaag	540
aagaagggtcg agaatatgcc tgacttaccat ttatagacc accgcattga gattctggc	600
aaccgcagaag acaagccgtt caagctgtac gagattgcta cagtcgcaca tcatggctg	660
aagggttaagc ctatccctaa ccctccctc ggactcgatt ctacgcgtac cggttag	717

<210> 52

<211> 238

<212> PRT

<213> Artificial Sequence

<220>

<223> Synthetically generated

<400> 52

Met Lys Gly Val Lys Glu Val Met Lys Ile Ser Leu Glu Met Asp Cys	
1 5 10 15	
Thr Val Asn Gly Asp Lys Phe Glu Ile Glu Gly Glu Gly Asn Gly Lys	
20 25 30	
Pro Tyr Ala Gly Val Gln Phe Met Ser Leu Glu Val Val Asn Gly Ala	
35 40 45	
Pro Leu Thr Phe Ser Phe Asp Val Leu Thr Pro Ala Phe Gln Tyr Gly	
50 55 60	
Asn Arg Thr Phe Thr Lys Tyr Pro Ala Asp Ile Pro Asp Tyr Ile Lys	
65 70 75 80	
Leu Ser Phe Pro Glu Gly Phe Thr Trp Glu Arg Ser Ile Pro Phe Gln	
85 90 95	
Asp Gln Ala Ser Cys Thr Val Thr Ser Asp Ile Ser Val Lys Gly Asp	

Ser	Phe	Phe	100			105			110							
			115	Tyr	Asp	Ile	Lys	Phe	Thr	Gly	Met	Asn	Phe	Pro	Pro	Asn
Gly	Pro	Val	120			125										
			130	Met	Gln	Arg	Arg	Ile	Arg	Gly	Trp	Glu	Pro	Ser	Thr	Glu
Asn	Ile	Tyr	135			140										
			145	Pro	Arg	Asp	Glu	Phe	Leu	Glu	Gly	His	Asp	Asp	Met	Thr
Leu	Arg	Val	150			155										160
			165	Glu	Gly	Gly	Tyr	Arg	Ala	Glu	Phe	Arg	Ser	Ser		
Tyr	Lys	Gly	170			175										
			180	Lys	Lys	Val	Glu	Asn	Met	Pro	Asp	Tyr	His	Phe	Ile	
Asp	His	Arg	185			190										
			195	Ile	Glu	Ile	Leu	Gly	Asn	Pro	Glu	Asp	Lys	Pro	Val	Lys
Leu	Tyr	Glu	200			205										
			210	Ile	Ala	Thr	Ala	Arg	His	His	Gly	Leu	Lys	Gly	Lys	Pro
Ile	Pro	Asn	215			220										
			225	Pro	Leu	Leu	Gly	Leu	Asp	Ser	Thr	Arg	Thr	Gly		
						230						235				

<210> 53

<211> 714

<212> DNA

<213> Artificial Sequence

<220>

<223> Synthetically generated

<400> 53

atgaaggggg	tgaaggaagt	aatgaagatc	agtctggaga	tggactgcac	tgttaacggc	60
gacaattta	cgatcaaagg	ggaaggagga	ggataccctt	acgaaggagt	acagtttatg	120
tctctgaag	tggtaatgg	cgcgcctctg	ccgttttctt	tcgatataatt	gacaccagca	180
tttatgtatg	gaaaccgtgt	attcacaaaa	tacccaaaag	agataccaga	ctatttcaag	240
cagaccttc	ctgaaggcta	tcactgggag	cgaataatga	ctttgagga	cgggggcgta	300
tgttgcatca	caagcgacat	cagtgtaaa	ggtgactctt	tcttctatga	cattaagttc	360
actggcatga	actttccccc	tcatggtcca	gtgatgcaga	gaaagacagt	aaaatgggag	420
ccatccactg	agaatgtta	tgttgacgac	aagagtgcg	gtgtgctgaa	gggagatgtc	480
aacatggctc	tgttgcttaa	agatggcgcc	cattacacat	gtgtctttaa	aactatttac	540
agatccaaga	agaaggctga	gaatatgcct	gactaccatt	ttatagacca	ccgcatttag	600
attatggagc	atgacgagga	ctacaaccat	gtcaagctgc	gcgagattgc	tacagctgc	660
catcatgggc	tgaagggtaa	gcctatccc	aaccctctcc	tcgactcga	ttga	714

<210> 54

<211> 237

<212> PRT

<213> Artificial Sequence

<220>

<223> Synthetically generated

<400> 54

Met	Lys	Gly	Val	Lys	Glu	Val	Met	Lys	Ile	Ser	Leu	Glu	Met	Asp	Cys
1			5			10			15						
Thr	Val	Asn	Gly	Asp	Lys	Phe	Thr	Ile	Lys	Gly	Glu	Gly	Gly	Tyr	
						20		25			30				
Pro	Tyr	Glu	Val	Gln	Phe	Met	Ser	Leu	Glu	Val	Val	Asn	Gly	Ala	
						35		40			45				
Pro	Leu	Pro	Phe	Ser	Phe	Ile	Leu	Thr	Pro	Ala	Phe	Met	Tyr	Gly	
						50		55			60				
Asn	Arg	Val	Phe	Thr	Lys	Tyr	Pro	Lys	Glu	Ile	Pro	Asp	Tyr	Phe	Lys
						65		70			75				80
Gln	Thr	Phe	Pro	Glu	Gly	Tyr	His	Trp	Glu	Arg	Ile	Met	Thr	Phe	Glu
						85		90			95				
Asp	Gly	Gly	Val	Cys	Cys	Ile	Thr	Ser	Asp	Ile	Ser	Val	Lys	Gly	Asp
						100		105			110				
Ser	Phe	Phe	Tyr	Asp	Ile	Lys	Phe	Thr	Gly	Met	Asn	Phe	Pro	Pro	His

Gly	Pro	115		120		125										
Val	Met	130	Met	Arg	Lys	Thr	Val	Lys	Trp	Glu	Pro	Ser	Thr	Glu		
					135					140						
Val	Met	145	Tyr	Val	Asp	Asp	Lys	Ser	Asp	Gly	Val	Leu	Lys	Gly	Asp	Val
						150					155					160
Asn	Met	165	Ala	Leu	Leu	Leu	Lys	Asp	Gly	Gly	His	Tyr	Thr	Cys	Val	Phe
											170					175
Lys	Thr	180	Ile	Tyr	Arg	Ser	Lys	Lys	Val	Glu	Asn	Met	Pro	Asp	Tyr	
His	Phe	195	Ile	Asp	His	Arg	Ile	Glu	Ile	Met	Glu	His	Asp	Glu	Asp	Tyr
										200			205			
Asn	His	210	Val	Lys	Leu	Arg	Glu	Ile	Ala	Thr	Ala	Arg	His	His	Gly	Leu
										215			220			
Lys	Gly	225	Lys	Pro	Ile	Pro	Asn	Pro	Leu	Leu	Gly	Leu	Asp			
										230			235			

<210> 55

<211> 711

<212> DNA

<213> Artificial Sequence

<220>

<223> Synthetically generated

<400> 55

atgaaggggg	tgaaggaagt	aatgaagatc	agtctggaga	tggactgcac	tgttagccgc	60
gacaattttg	agatcgaaagg	ggaggggaaac	ggaaaacctt	acgcaggaaac	aaattttgtt	120
aaacttgtat	tgacgaaagg	cgggcctctg	ccgtttgggtt	ggcatatatt	gtcaccagca	180
tttatgtatg	gaaaccgtgt	attcacaaaa	tacccaaag	agataccaga	ctatttcaag	240
cagacccccc	ctgaaggcta	tcactggggag	cgaaggattc	cttttcaaga	ccaggcctca	300
tgtaccgtca	caagcgacat	cagttgtaaaa	ggtgactctt	tctactataa	gattcacttc	360
actggcgagt	ttcctccctca	tggtccagtg	atgcagagaa	agacagtaaa	atgggagcca	420
tccactgaac	gattgtatct	tcgcgacgg	gtgctgacgg	gacatgacga	catgactctg	480
cgggttgaag	gtggccgcca	tttgagagtt	gactttaaca	cttcttacat	acccaagcac	540
tcgatcaaca	tgccggattt	ccattttata	gaccaccgca	ttgagattct	gggcaaccca	600
gaagacaagc	cggtcaagct	gtacgagatt	gctacagctc	gccatcatgg	gctgaagggt	660
aagcttatcc	ctaaccctct	cctcggaactc	gattctacgc	gtaccggta	g	711

<210> 56

<211> 236

<212> PRT

<213> Artificial Sequence

<220>

<223> Synthetically generated

<400> 56

Met	Lys	Gly	Val	Lys	Glu	Val	Met	Lys	Ile	Ser	Leu	Glu	Met	Asp	Cys	
1				5		10		15								
Thr	Val	Ser	Gly	Asp	Lys	Phe	Glu	Ile	Glu	Gly	Glu	Gly	Asn	Gly	Lys	
						20		25		30						
Pro	Tyr	Ala	Gly	Thr	Asn	Phe	Val	Lys	Leu	Val	Val	Thr	Lys	Gly		
						35		40		45						
Pro	Leu	Pro	Phe	Gly	Trp	His	Ile	Leu	Ser	Pro	Ala	Phe	Met	Tyr	Gly	
						50		55		60						
Asn	Arg	Val	Phe	Thr	Lys	Tyr	Pro	Lys	Glu	Ile	Pro	Asp	Tyr	Phe	Lys	
						65		70		75					80	
Gln	Thr	Phe	Pro	Glu	Gly	Tyr	His	Trp	Glu	Arg	Ser	Ile	Pro	Phe	Gln	
						85		90		95						
Asp	Gln	Ala	Ser	Cys	Thr	Val	Thr	Ser	Asp	Ile	Ser	Val	Lys	Gly	Asp	
						100		105		110						
Ser	Phe	Tyr	Tyr	Lys	Ile	His	Phe	Thr	Gly	Glu	Phe	Pro	Pro	His	Gly	
						115		120		125						
Pro	Val	Met	Gln	Arg	Lys	Thr	Val	Lys	Trp	Glu	Pro	Ser	Thr	Glu	Arg	

130	135	140													
Leu	Tyr	Leu	Arg	Asp	Gly	Val	Leu	Thr	Gly	His	Asp	Asp	Met	Thr	Leu
145		150					155								160
Arg	Val	Glu	Gly	Gly	Arg	His	Leu	Arg	Val	Asp	Phe	Asn	Thr	Ser	Tyr
							165		170					175	
Ile	Pro	Lys	His	Ser	Ile	Asn	Met	Pro	Asp	Phe	His	Phe	Ile	Asp	His
							180		185					190	
Arg	Ile	Glu	Ile	Leu	Gly	Asn	Pro	Glu	Asp	Lys	Pro	Val	Lys	Leu	Tyr
							195		200				205		
Glu	Ile	Ala	Thr	Ala	Arg	His	His	Gly	Leu	Lys	Gly	Lys	Pro	Ile	Pro
							210		215				220		
Asn	Pro	Leu	Leu	Gly	Leu	Asp	Ser	Thr	Arg	Thr	Gly				
							225		230				235		

<210> 57

<211> 735

<212> DNA

<213> Artificial Sequence

<220>

<223> Synthetically generated

<400> 57

atgagtcatt	ccaagagtgt	gatcaaggac	gaaatgttca	tcaagattca	tctggaggc	60
acttttaacg	gccacaaatt	tacgatcaa	ggggaggag	gaggataccc	ttacgaagga	120
acaaattttg	taaaacttgt	agtgcgaaa	ggcgggcctc	tgcgttttc	ttcgatata	180
ttgacaccag	catttcagta	tgaaaaaccgt	acattcacca	aataccacgc	cgatataccca	240
gactatatac	agctgtccctt	tcctgagggc	tttacctggg	agcgaagcat	tcctttcaa	300
gaccaggcct	catgtaccgt	cacaagccac	atcaggatga	aagaggaaga	ggagcggcat	360
ttctactata	agattcacct	cactggcgag	tttcctctta	atggtccagt	gatgcagagg	420
aggatacggag	gatggggagcc	atccactgaa	cgattgtatc	ttcgcgacgg	tgtgctgacg	480
ggacatgacg	acatgactct	gcgggttcaa	ggtggccccc	atttgagagt	tgactttaac	540
acttcttaca	tacccaagca	ctcgatcaac	atgccggatt	tccattttat	agaccaccgc	600
attgagatta	tgtagatcgat	cgaggactac	aaccatgtca	agctgcgcga	gattgctaca	660
gctcgccatc	atgggctgaa	gggtaaagcct	atccctaacc	ctctccctcg	actcgattct	720
acgcgtaccg	gttag					735

<210> 58

<211> 244

<212> PRT

<213> Artificial Sequence

<220>

<223> Synthetically generated

<400> 58

Met	Ser	His	Ser	Lys	Ser	Val	Ile	Lys	Asp	Glu	Met	Phe	Ile	Lys	Ile
1				5			10		15						
His	Leu	Glu	Gly	Thr	Phe	Asn	Gly	His	Lys	Phe	Thr	Ile	Lys	Gly	Glu
							20		25				30		
Gly	Gly	Gly	Tyr	Pro	Tyr	Glu	Gly	Thr	Asn	Phe	Val	Lys	Leu	Val	Val
							35		40			45			
Thr	Lys	Gly	Gly	Pro	Leu	Pro	Phe	Ser	Phe	Asp	Ile	Leu	Thr	Pro	Ala
							50		55			60			
Phe	Gln	Tyr	Gly	Asn	Arg	Thr	Phe	Thr	Lys	Tyr	Pro	Ala	Asp	Ile	Pro
							65		70			75			80
Asp	Tyr	Ile	Lys	Leu	Ser	Phe	Pro	Glu	Gly	Phe	Thr	Trp	Glu	Arg	Ser
							85		90			95			
Ile	Pro	Phe	Gln	Asp	Gln	Ala	Ser	Cys	Thr	Val	Thr	Ser	His	Ile	Arg
							100		105			110			
Met	Lys	Glu	Glu	Glu	Arg	His	Phe	Tyr	Tyr	Lys	Ile	His	Phe	Thr	
							115		120			125			
Gly	Glu	Phe	Pro	Pro	Asn	Gly	Pro	Val	Met	Gln	Arg	Arg	Ile	Arg	Gly
							130		135			140			

Trp Glu Pro Ser Thr Glu Arg Leu Tyr Leu Arg Asp Gly Val Leu Thr
 145 150 155 160
 Gly His Asp Asp Met Thr Leu Arg Val Glu Gly Gly Arg His Leu Arg
 165 170 175
 Val Asp Phe Asn Thr Ser Tyr Ile Pro Lys His Ser Ile Asn Met Pro
 180 185 190
 Asp Phe His Phe Ile Asp His Arg Ile Glu Ile Met Glu His Asp Glu
 195 200 205
 Asp Tyr Asn His Val Lys Leu Arg Glu Ile Ala Thr Ala Arg His His
 210 215 220
 Gly Leu Lys Gly Lys Pro Ile Pro Asn Pro Leu Leu Gly Leu Asp Ser
 225 230 235 240
 Thr Arg Thr Gly

<210> 59

<211> 720

<212> DNA

<213> Artificial Sequence

<220>

<223> Synthetically generated

<400> 59

atgaaggggg	tgaaggaagt	aatgaagatc	agtctggaga	tggactgcac	tgttaacggc	60
gacaattta	cgtacaaagg	ggaaggagga	ggataccctt	acgaggagt	acagtttatg	120
tctcttgaa	ttgtgaatgg	cgccctctg	cggtttctt	tcgatattat	gacaccagca	180
tttatgtat	gaaaccgtgt	attcaccaa	tacccagca	atataccaga	cttttcaag	240
cagaccgtt	ctggtggccg	gtataacctgg	gagcgaataa	tgacttttg	ggacggggc	300
gtatgttgc	tcacaaggca	catcagtgt	aaaggtgact	ctttttctt	tgacattaag	360
ttcactggca	tgaactttcc	tcctcatgg	ccagtgtatgc	agagaaaagac	agtaaaatgg	420
gagccatcca	ctgaacgatt	gtatcttcgc	gacgggtgtgc	tgacgggaca	tgacgacatg	480
actctgcggg	ttgaagggtgg	cggccattac	acatgtgtct	ttaaaactat	ttacagatcc	540
aagcaactcg	tcaacatgcc	ggatttccat	tttataagacc	accgcattga	gattatggag	600
catgacgagg	actacaacca	tgtcaagctg	cgcgagattg	ctacagctcg	ccatcatggg	660
ctgaagggt	agcctatccc	taaccctctc	ctcggactcg	attctacgcg	taccggtag	720

<210> 60

<211> 239

<212> PRT

<213> Artificial Sequence

<220>

<223> Synthetically generated

<400> 60

Met Lys Gly Val Lys Glu Val Met Lys Ile Ser Leu Glu Met Asp Cys						
1 5 10 15						
Thr Val Asn Gly Asp Lys Phe Thr Ile Lys Gly Glu Gly Gly Tyr						
20 25 30						
Pro Tyr Glu Gly Val Gln Phe Met Ser Leu Glu Val Val Asn Gly Ala						
35 40 45						
Pro Leu Pro Phe Ser Phe Asp Ile Leu Thr Pro Ala Phe Met Tyr Gly						
50 55 60						
Asn Arg Val Phe Thr Lys Tyr Pro Gly Asn Ile Pro Asp Phe Phe Lys						
65 70 75 80						
Gln Thr Val Ser Gly Gly Tyr Thr Trp Glu Arg Ile Met Thr Phe						
85 90 95						
Glu Asp Gly Gly Val Cys Cys Ile Thr Ser Asp Ile Ser Val Lys Gly						
100 105 110						
Asp Ser Phe Phe Tyr Asp Ile Lys Phe Thr Gly Met Asn Phe Pro Pro						
115 120 125						
His Gly Pro Val Met Gln Arg Lys Thr Val Lys Trp Glu Pro Ser Thr						
130 135 140						

Glu Arg Leu Tyr Leu Arg Asp Gly Val Leu Thr Gly His Asp Asp Met
 145 150 155 160
 Thr Leu Arg Val Glu Gly Gly His Tyr Thr Cys Val Phe Lys Thr
 165 170 175
 Ile Tyr Arg Ser Lys His Ser Ile Asn Met Pro Asp Phe His Phe Ile
 180 185 190
 Asp His Arg Ile Glu Ile Met Glu His Asp Glu Asp Tyr Asn His Val
 195 200 205
 Lys Leu Arg Glu Ile Ala Thr Ala Arg His His Gly Leu Lys Gly Lys
 210 215 220
 Pro Ile Pro Asn Pro Leu Leu Gly Leu Asp Ser Thr Arg Thr Gly
 225 230 235

<210> 61
 <211> 720
 <212> DNA
 <213> Artificial Sequence

<220>
 <223> Synthetically generated

<400> 61

atgaaggggg	tgaaggaagt	aatgaagatc	agtctggaga	tggactgcac	tgttaacggc	60
gacaattta	cgatcaaagg	ggaaggagga	ggataccctt	acgaaggagt	acagtttatg	120
tctcttgaag	tggtaatgg	cgcgcctctg	ccgttttctt	tcgatatatt	gacaccagca	180
tttatgtatg	gaaaccgtgt	attcaccaa	tacccaaaag	agataccaga	ctatttcaag	240
cagacccccc	ctgaaggcta	tcactgggag	cgaataatga	cttttgagga	cgggggcgta	300
tgttgcata	caagcgacat	cagtgtgaaa	ggtgactctt	tctactataa	gattcacttc	360
actggcgagt	ttccctcctca	tggccagtg	atgcagagaa	agacagtaaa	atgggagcca	420
tccactgaag	taatgtatgt	tgacgacaag	agtgcgggt	tgcgtgaaggg	agatgtcaac	480
atggctctgt	tgcttaaaga	tggccgtcat	tacacatgt	tctttaaaac	tatttacaga	540
tccaaggact	cgatcaacat	gccggatttc	cattttatag	accaccgcat	tgagattctg	600
ggcaacccag	aagacaagcc	ggtcaagctg	tacgagattg	ctacagctcg	ccatcatggg	660
ctgaagggtta	agcctatccc	taaccctctc	ctcggactcg	attctacgctg	taccggtag	720

<210> 62
 <211> 239
 <212> PRT
 <213> Artificial Sequence

<220>
 <223> Synthetically generated

<400> 62

Met Lys Gly Val Lys Glu Val Met Lys Ile Ser Leu Glu Met Asp Cys						
1	5	10	15			
Thr Val Asn Gly Asp Lys Phe Thr Ile Lys Gly Glu Gly Gly Tyr						
20	25	30				
Pro Tyr Glu Gly Val Gln Phe Met Ser Leu Glu Val Val Asn Gly Ala						
35	40	45				
Pro Leu Pro Phe Ser Phe Asp Ile Leu Thr Pro Ala Phe Met Tyr Gly						
50	55	60				
Asn Arg Val Phe Thr Lys Tyr Pro Lys Glu Ile Pro Asp Tyr Phe Lys						
65	70	75	80			
Gln Thr Phe Pro Glu Gly Tyr His Trp Glu Arg Ile Met Thr Phe Glu						
85	90	95				
Asp Gly Gly Val Cys Cys Ile Thr Ser Asp Ile Ser Val Lys Gly Asp						
100	105	110				
Ser Phe Tyr Tyr Lys Ile His Phe Thr Gly Glu Phe Pro Pro His Gly						
115	120	125				
Pro Val Met Gln Arg Lys Thr Val Lys Trp Glu Pro Ser Thr Glu Val						
130	135	140				
Met Tyr Val Asp Asp Lys Ser Asp Gly Val Leu Lys Gly Asp Val Asn						
145	150	155	160			

Met Ala Leu Leu Leu Lys Asp Gly Gly His Tyr Thr Cys Val Phe Lys
 165 170 175
 Thr Ile Tyr Arg Ser Lys His Ser Ile Asn Met Pro Asp Phe His Phe
 180 185 190
 Ile Asp His Arg Ile Glu Ile Leu Gly Asn Pro Glu Asp Lys Pro Val
 195 200 205
 Lys Leu Tyr Glu Ile Ala Thr Ala Arg His His Gly Leu Lys Gly Lys
 210 215 220
 Pro Ile Pro Asn Pro Leu Leu Gly Leu Asp Ser Thr Arg Thr Gly
 225 230 235

<210> 63

<211> 516

<212> DNA

<213> Artificial Sequence

<220>

<223> Synthetically generated

<400> 63

atgagtcatt ccaagagtgt gatcaaggac	gaaatgttca tcaagattca	tctggaaaggc	60
acttttaacg gccacaaaatt tacgatcaa	ggggaaaggag gaggataccc	ttacgaagga	120
gtacagttt agttgttgc	gttgttgc	tgacgttttcc	180
ttgacaccac aattacagta tggaaacaag	tcattcgta	gctacccaaa	240
gactattca agcagaccc ttccgttgc	tatcacttggg	agcgaataat	300
gacgggggcg tatgttgc	cacaagcgac atcagtgtga	aagggtactc	360
aagatttact tcacttgcgat	gtttcccttc	catggtccag tgatgcagag	420
aatatgggagc catccactga aaacatttat	cctcgcgacg	aatttcttgcgaa	480
aacatggctc tggttgc	agaggccgc	gggagatgtc	
	atttgc		516

<210> 64

<211> 171

<212> PRT

<213> Artificial Sequence

<220>

<223> Synthetically generated

<400> 64

Met Ser His Ser Lys Ser Val Ile Lys Asp Glu Met Phe Ile Lys Ile			
1 5 10 15			
His Leu Glu Gly Thr Phe Asn Gly His Lys Phe Thr Ile Lys Glu			
20 25 30			
Gly Gly Gly Tyr Pro Tyr Glu Gly Val Gln Phe Met Ser Leu Glu Val			
35 40 45			
Val Asn Gly Ala Pro Leu Thr Phe Ser Phe Asp Val Leu Thr Pro Gln			
50 55 60			
Leu Gln Tyr Gly Asn Lys Ser Phe Val Ser Tyr Pro Lys Glu Ile Pro			
65 70 75 80			
Asp Tyr Phe Lys Gln Thr Phe Pro Glu Gly Tyr His Trp Glu Arg Ile			
85 90 95			
Met Thr Phe Glu Asp Gly Gly Val Cys Cys Ile Thr Ser Asp Ile Ser			
100 105 110			
Val Lys Gly Asp Ser Phe Tyr Tyr Lys Ile His Phe Thr Gly Glu Phe			
115 120 125			
Pro Pro His Gly Pro Val Met Gln Arg Lys Thr Val Lys Trp Glu Pro			
130 135 140			
Ser Thr Glu Asn Ile Tyr Pro Arg Asp Glu Phe Leu Glu Gly Asp Val			
145 150 155 160			
Asn Met Ala Leu Leu Lys Glu Ala Ala Ile			
165 170			

<210> 65

<211> 714

<212> DNA
<213> Artificial Sequence

<220>
<223> Synthetically generated

<400> 65

atgaaggggg	tgaaggaagt	aatgaagatc	agtctggaga	tggactgcac	tgttaacggc	60
gacaattttt	cgatcaaagg	ggaaggagga	ggataccctt	acgaaggagt	acagtttatg	120
tctctgaag	tggtaatgg	cgcgcctctg	ccgttttctt	tcgatatatt	gacaccagca	180
tttagtgtatg	gaaaccgtgt	attcacccaaa	tacccaaaag	agataccaga	ctatttcaag	240
cagacccccc	ctgaaggcta	tcactgggag	cgaataatga	cttttgagga	cggggcgta	300
tgttgcata	caagcgacat	cagtgtgaaa	ggtgactctt	tctactataa	gattcacttc	360
actggcgagt	tccctcctca	tggtccagtg	atgcagagaa	agacagtaaa	atgggagcca	420
tccactgaaa	acatttatcc	tcgcgacgaa	tttctggagg	gagatgtcaa	catggctctg	480
ttgcttaaag	atggccgcca	tttgagagtt	gactttaaca	cttcttacat	acccaagaag	540
aaggctgaga	atatgcctga	ctaccattt	atagaccacc	gcattgagat	tctgggcaac	600
ccagaagaca	agccggtcaa	gctgtacgag	attgctacag	ctcgccatca	tgggctgaag	660
ggtaagccta	tccctaacc	tctccctcgga	ctcgattcta	cgcgtaccgg	tttag	714

<210> 66

<211> 237

<212> PRT

<213> Artificial Sequence

<220>

<223> Synthetically generated

<400> 66

Met Lys Gly Val Lys Glu Val Met Lys Ile Ser Leu Glu Met Asp Cys						
1	5	10	15			
Thr Val Asn Gly Asp Lys Phe Thr Ile Lys Gly Glu Gly Gly Tyr						
20	25	30				
Pro Tyr Glu Gly Val Gln Phe Met Ser Leu Glu Val Val Asn Gly Ala						
35	40	45				
Pro Leu Pro Phe Ser Phe Asp Ile Leu Thr Pro Ala Phe Met Tyr Gly						
50	55	60				
Asn Arg Val Phe Thr Lys Tyr Pro Lys Glu Ile Pro Asp Tyr Phe Lys						
65	70	75	80			
Gln Thr Phe Pro Glu Gly Tyr His Trp Glu Arg Ile Met Thr Phe Glu						
85	90	95				
Asp Gly Gly Val Cys Cys Ile Thr Ser Asp Ile Ser Val Lys Gly Asp						
100	105	110				
Ser Phe Tyr Tyr Lys Ile His Phe Thr Gly Glu Phe Pro Pro His Gly						
115	120	125				
Pro Val Met Gln Arg Lys Thr Val Lys Trp Glu Pro Ser Thr Glu Asn						
130	135	140				
Ile Tyr Pro Arg Asp Glu Phe Leu Glu Gly Asp Val Asn Met Ala Leu						
145	150	155	160			
Leu Leu Lys Asp Gly Arg His Leu Arg Val Asp Phe Asn Thr Ser Tyr						
165	170	175				
Ile Pro Lys Lys Val Glu Asn Met Pro Asp Tyr His Phe Ile Asp						
180	185	190				
His Arg Ile Glu Ile Leu Gly Asn Pro Glu Asp Lys Pro Val Lys Leu						
195	200	205				
Tyr Glu Ile Ala Thr Ala Arg His His Gly Leu Lys Gly Lys Pro Ile						
210	215	220				
Pro Asn Pro Leu Leu Gly Leu Asp Ser Thr Arg Thr Gly						
225	230	235				

<210> 67

<211> 639

<212> DNA

<213> Artificial Sequence

<220>

<223> Synthetically generated

<400> 67

atgaaggggg	tgaaggaagt	aatgaagatc	agtctggaga	tggactgcac	tgttaacggc	60
gacaattta	cgcataaagg	ggaaggagga	ggataccctt	acgaaggagt	acagtttatg	120
tctctgaag	tggtaatgg	cgcgcctcg	ccgttgggtt	ggcatatatt	gtcaccacaa	180
ttacatgtat	gaaacaaggc	attcgtcagc	tacccaggca	atataccaga	cttttcaag	240
cagaccgtt	ctgggtggcgg	gtataacctac	tataagattc	acttcactgg	cgagtttcct	300
cctaattgtc	cagtgtatgca	gaggaggata	cgaggatggg	agccatccac	tgaacgattg	360
tatcttcgcg	acgggtgtgct	gacgggagat	atccacaaga	ctctgaaaact	tagcgggtggc	420
cgccatttga	gagttgactt	taacacttct	tacataccca	agactcgtat	caacatgccg	480
gatttccatt	ttatagacca	ccgcatttgc	attcggaaat	tcgacgaaaa	ttacatcaac	540
gtcgagcagg	acgagattgc	tacagctcgc	catcatggc	tgaaggtaa	gcctatccct	600
aaccctctcc	tcggactcga	ttctacgcgt	accggttag			639

<210> 68

<211> 212

<212> PRT

<213> Artificial Sequence

<220>

<223> Synthetically generated

<400> 68

Met	Lys	Gly	Val	Lys	Glu	Val	Met	Lys	Ile	Ser	Leu	Glu	Met	Asp	Cys
1				5				10				15			
Thr	Val	Asn	Gly	Asp	Lys	Phe	Thr	Ile	Lys	Gly	Glu	Gly	Gly	Tyr	
								20	25			30			
Pro	Tyr	Glu	Gly	Val	Gln	Phe	Met	Ser	Leu	Glu	Val	Val	Asn	Gly	Ala
								35	40			45			
Pro	Leu	Pro	Phe	Gly	Trp	His	Ile	Leu	Ser	Pro	Gln	Leu	Gln	Tyr	Gly
							50	55			60				
Asn	Lys	Ser	Phe	Val	Ser	Tyr	Pro	Gly	Asn	Ile	Pro	Asp	Phe	Phe	Lys
							65	70			75		80		
Gln	Thr	Val	Ser	Gly	Gly	Tyr	Thr	Tyr	Tyr	Lys	Ile	His	Phe	Thr	
							85	90			95				
Gly	Glu	Phe	Pro	Pro	Asn	Gly	Pro	Val	Met	Gln	Arg	Arg	Ile	Arg	Gly
							100	105			110				
Trp	Glu	Pro	Ser	Thr	Glu	Arg	Leu	Tyr	Leu	Arg	Asp	Gly	Val	Leu	Thr
							115	120			125				
Gly	Asp	Ile	His	Lys	Thr	Leu	Lys	Leu	Ser	Gly	Gly	Arg	His	Leu	Arg
							130	135			140				
Val	Asp	Phe	Asn	Thr	Ser	Tyr	Ile	Pro	Lys	His	Ser	Ile	Asn	Met	Pro
							145	150			155		160		
Asp	Phe	His	Phe	Ile	Asp	His	Arg	Ile	Asp	Ile	Arg	Lys	Phe	Asp	Glu
							165	170			175				
Asn	Tyr	Ile	Asn	Val	Glu	Gln	Asp	Glu	Ile	Ala	Thr	Ala	Arg	His	His
							180	185			190				
Gly	Leu	Lys	Gly	Lys	Pro	Ile	Pro	Asn	Pro	Leu	Leu	Gly	Leu	Asp	Ser
							195	200			205				
Thr	Arg	Thr	Gly												
	210														

<210> 69

<211> 741

<212> DNA

<213> Artificial Sequence

<220>

<223> Synthetically generated

<400> 69

atgagtcat	ccaagagtgt	gatcaaggac	gaaatgttca	tcaagattca	tctggaaaggc	60
acttttaacg	gccacaaaatt	tgagatcgaa	ggggaggggaa	acgaaaaacc	ttacgcagga	120
acaattttg	taaaacttgt	agtacgaaa	ggccgggcctc	tgacgttttc	tttcgatgt	180
ttgacaccag	catttatgt	tggaaaaccgt	gtattcacca	aataacccaaa	agagatacca	240
gactattca	agcagacett	tcctgaaggc	tatcactggg	agcgaataat	gacttttag	300
gacggggcg	tatgttgc	cacaagcgac	atcagtgtga	aagggtactc	tttcttctat	360
gacattaagt	tcactggcat	gaactttcct	cctcatggtc	cagtgatgca	gagaaaagaca	420
gtaaaatggg	agccatccac	tgaagtaatg	tatgttgc	acaagagtga	cggtgtgctg	480
aaggagatg	tcaacatggc	tctgttgctt	aaagatggcg	gctattacag	agctgaattt	540
agaagttctt	acaaaggcaa	gaagaaggc	gagaatatgc	ctgactacca	tttatagac	600
caccgcattg	agattatgg	gcatgacgag	gactacaacc	atgtcaagct	gcgcgagatt	660
gctacagctc	gcccattatgg	gctgaagggt	aagcctatcc	ctaaccctct	cctcgagactc	720
gattctacgc	gtaccggta	g				741

<210> 70

<211> 246

<212> PRT

<213> Artificial Sequence

<220>

<223> Synthetically generated

<400> 70

Met	Ser	His	Ser	Lys	Ser	Val	Ile	Lys	Asp	Glu	Met	Phe	Ile	Lys	Ile
1				5				10			15				
His	Leu	Glu	Gly	Thr	Phe	Asn	Gly	His	Lys	Phe	Glu	Ile	Glu	Gly	Glu
				20				25			30				
Gly	Asn	Gly	Lys	Pro	Tyr	Ala	Gly	Thr	Asn	Phe	Val	Lys	Leu	Val	Val
				35				40			45				
Thr	Lys	Gly	Gly	Pro	Leu	Thr	Phe	Ser	Phe	Asp	Val	Leu	Thr	Pro	Ala
				50				55			60				
Phe	Met	Tyr	Gly	Asn	Arg	Val	Phe	Thr	Lys	Tyr	Pro	Lys	Glu	Ile	Pro
	65				70				75				80		
Asp	Tyr	Phe	Lys	Gln	Thr	Phe	Pro	Glu	Gly	Tyr	His	Trp	Glu	Arg	Ile
				85				90				95			
Met	Thr	Phe	Glu	Asp	Gly	Gly	Val	Cys	Cys	Ile	Thr	Ser	Asp	Ile	Ser
	100						105			105			110		
Val	Lys	Gly	Asp	Ser	Phe	Phe	Tyr	Asp	Ile	Lys	Phe	Thr	Gly	Met	Asn
	115						120			120			125		
Phe	Pro	Pro	His	Gly	Pro	Val	Met	Gln	Arg	Lys	Thr	Val	Lys	Trp	Glu
	130						135				140				
Pro	Ser	Thr	Glu	Val	Met	Tyr	Val	Asp	Asp	Lys	Ser	Asp	Gly	Val	Leu
	145						150				155			160	
Lys	Gly	Asp	Val	Asn	Met	Ala	Leu	Leu	Leu	Lys	Asp	Gly	Gly	Tyr	Tyr
							165			170			175		
Arg	Ala	Glu	Phe	Arg	Ser	Ser	Tyr	Lys	Gly	Lys	Lys	Lys	Val	Glu	Asn
				180				185				190			
Met	Pro	Asp	Tyr	His	Phe	Ile	Asp	His	Arg	Ile	Glu	Ile	Met	Glu	His
	195						200			200			205		
Asp	Glu	Asp	Tyr	Asn	His	Val	Lys	Leu	Arg	Glu	Ile	Ala	Thr	Ala	Arg
	210						215				220				
His	His	Gly	Leu	Lys	Gly	Lys	Pro	Ile	Pro	Asn	Pro	Leu	Leu	Gly	Leu
	225						230				235				
Asp	Ser	Thr	Arg	Thr	Gly										
					245										

<210> 71

<211> 462

<212> DNA

<213> Artificial Sequence

<220>

<223> Synthetically generated

<400> 71

atgatgaccg	atctgcac	tttggcgact	gttaacggcg	acaaatttac	gatcaaagg	60
gaaggaggag	gataccctta	cgaaggagta	cagtttatgt	ctcttgaagt	ggtaatggc	120
gcgcctctgc	cgtttctt	cgatatatgg	acaccacaat	tacagtatgg	aaacaagtca	180
ttcgtcagct	acccaaaaga	gataccagac	tatttcaagc	agaccttcc	tgaaggctat	240
cactgggagc	gaataatgac	tttgaggac	gggggcgtat	gttgcac	aagcgacatc	300
agtgtgaaag	gtgactctt	ctactataag	attcaactca	ctggcgagtt	tcctccat	360
gttccagtga	tgcagagaaa	gacagtaaaa	tgggagccat	ccactgaagt	aatgtatgtt	420
gacgacaaga	gtgacggtgt	gcgaagggac	atgacgacat	ga		462

<210> 72

<211> 153

<212> PRT

<213> Artificial Sequence

<220>

<223> Synthetically generated

<400> 72

Met	Met	Thr	Asp	Leu	His	Leu	Asp	Cys	Thr	Val	Asn	Gly	Asp	Lys	Phe
1				5					10				15		
Thr	Ile	Lys	Gly	Glu	Gly	Gly	Tyr	Pro	Tyr	Glu	Gly	Val	Gln	Phe	
		20					25					30			
Met	Ser	Leu	Glu	Val	Val	Asn	Gly	Ala	Pro	Leu	Pro	Phe	Ser	Phe	Asp
						35			40		45				
Ile	Leu	Thr	Pro	Gln	Leu	Gln	Tyr	Gly	Asn	Lys	Ser	Phe	Val	Ser	Tyr
							50		55		60				
Pro	Lys	Glu	Ile	Pro	Asp	Tyr	Phe	Lys	Gln	Thr	Phe	Pro	Glu	Gly	Tyr
							65		70		75			80	
His	Trp	Glu	Arg	Ile	Met	Thr	Phe	Glu	Asp	Gly	Gly	Val	Cys	Cys	Ile
							85		90				95		
Thr	Ser	Asp	Ile	Ser	Val	Lys	Gly	Asp	Ser	Phe	Tyr	Tyr	Lys	Ile	His
							100		105				110		
Phe	Thr	Gly	Glu	Phe	Pro	Pro	His	Gly	Pro	Val	Met	Gln	Arg	Lys	Thr
							115		120			125			
Val	Lys	Trp	Glu	Pro	Ser	Thr	Glu	Val	Met	Tyr	Val	Asp	Asp	Lys	Ser
							130		135			140			
Asp	Gly	Val	Arg	Arg	Asp	Met	Thr	Thr							
						145						150			

<210> 73

<211> 726

<212> DNA

<213> Artificial Sequence

<220>

<223> Synthetically generated

<400> 73

atgaaggggg	tgaaggaagt	aatgaagatc	agtctggaga	tggagggcgc	tgttaacggc	60
caccacttg	agatcgaagg	ggagggaaac	ggaaaacctt	acgcaggagt	acagttatg	120
tctcttgaag	tggtaatgg	cgcgcctctg	ccgtttctt	tcgatatat	gacaccagca	180
tttatgtatg	gaaaccgtgt	attcacaaa	tacccaaaag	agataccaga	ctatttcaag	240
cagacccccc	ctgaaggcta	tcactggag	cgaataatga	cttttggaga	cgggggcgta	300
tgttgcac	caagccacat	caggatgaaa	gaggaagagg	agccgcattt	ctactataag	360
attcaactca	ctggcgagtt	tcctccat	ggtccagtg	tgcagagaaa	gacagtaaaa	420
tgggagccat	ccactgaaaa	catttatcct	cgcgacgaat	ttctggaggg	agatgtcaac	480
atggctctgt	tgcattaaaga	tggccgcat	ttgagagttt	actttaacac	ttcttacata	540
cccaagaaga	aggtcgagaa	tatgcctgac	taccatttt	tagaccaccg	catttgagatt	600
atggagcatg	acggagacta	caaccatgtc	aagctgcgcg	agattgctac	agctcgccat	660
catgggctga	agggttaagcc	tatccctaac	cctctccctcg	gactcgattc	tacgcgtacc	720
						726

<210> 74

<211> 241
<212> PRT
<213> Artificial sequence

<220>
<223> Synthetically generated

<400> 74
Met Lys Gly Val Lys Glu Val Met Lys Ile Ser Leu Glu Met Glu Gly
1 5 10 15
Ala Val Asn Gly His His Phe Glu Ile Glu Gly Glu Gly Asn Gly Lys
20 25 30
Pro Tyr Ala Gly Val Gln Phe Met Ser Leu Glu Val Val Asn Gly Ala
35 40 45
Pro Leu Pro Phe Ser Phe Asp Ile Leu Thr Pro Ala Phe Met Tyr Gly
50 55 60
Asn Arg Val Phe Thr Lys Tyr Pro Lys Glu Ile Pro Asp Tyr Phe Lys
65 70 75 80
Gln Thr Phe Pro Glu Gly Tyr His Trp Glu Arg Ile Met Thr Phe Glu
85 90 95
Asp Gly Gly Val Cys Cys Ile Thr Ser His Ile Arg Met Lys Glu Glu
100 105 110
Glu Glu Arg His Phe Tyr Tyr Lys Ile His Phe Thr Gly Glu Phe Pro
115 120 125
Pro His Gly Pro Val Met Gln Arg Lys Thr Val Lys Trp Glu Pro Ser
130 135 140
Thr Glu Asn Ile Tyr Pro Arg Asp Glu Phe Leu Glu Gly Asp Val Asn
145 150 155 160
Met Ala Leu Leu Leu Lys Asp Gly Arg His Leu Arg Val Asp Phe Asn
165 170 175
Thr Ser Tyr Ile Pro Lys Lys Val Glu Asn Met Pro Asp Tyr His
180 185 190
Phe Ile Asp His Arg Ile Glu Ile Met Glu His Asp Glu Asp Tyr Asn
195 200 205
His Val Lys Leu Arg Glu Ile Ala Thr Ala Arg His His Gly Leu Lys
210 215 220
Gly Lys Pro Ile Pro Asn Pro Leu Leu Gly Leu Asp Ser Thr Arg Thr
225 230 235 240
Gly

<210> 75
<211> 492
<212> DNA
<213> Artificial Sequence

<220>
<223> Synthetically generated

<400> 75
atgatgaccg atctgcacatc ggagggcgct gttaacggcc accactttac gatcaaagg 60
gaaggaggag gataccctta cgaaggaaca cagactttac atcttacaga gaaggaaggc 120
aagccctctgc cggttgggtg gcatatatgg tcaccacaat tacagtatgg aaacaagtca 180
ttcgtcagct accccaaaaga gataccagac tatttcaagc agacctttcc tgaaggctat 240
cactgggagc gaataatgac ttttgaggac gggggcgat gttgcatcac aagcgacatc 300
agtgtgaaag gtgactttt ctcttatgac attaagtca ctggcatgaa ctttccctc 360
catgttccag tgatgcagag aaagacagta aaatgggagc catccactga aaacatttat 420
cctcgcgacg aatttctgga gggacatgac gacatgactc tgccggtgaa gtggccgcca 480
tttgagagtt ga 492

<210> 76
<211> 163
<212> PRT
<213> Artificial Sequence

<220>

<223> Synthetically generated

<400> 76

Met Met Thr Asp Leu His Leu Glu Gly Ala Val Asn Gly His His Phe
1 5 10 15
Thr Ile Lys Gly Glu Gly Gly Tyr Pro Tyr Glu Gly Thr Gln Thr
20 25 30
Leu His Leu Thr Glu Lys Glu Gly Lys Pro Leu Pro Phe Gly Trp His
35 40 45
Ile Leu Ser Pro Gln Leu Gln Tyr Gly Asn Lys Ser Phe Val Ser Tyr
50 55 60
Pro Lys Glu Ile Pro Asp Tyr Phe Lys Gln Thr Phe Pro Glu Gly Tyr
65 70 75 80
His Trp Glu Arg Ile Met Thr Phe Glu Asp Gly Gly Val Cys Cys Ile
85 90 95
Thr Ser Asp Ile Ser Val Lys Gly Asp Ser Phe Phe Tyr Asp Ile Lys
100 105 110
Phe Thr Gly Met Asn Phe Pro Pro His Gly Pro Val Met Gln Arg Lys
115 120 125
Thr Val Lys Trp Glu Pro Ser Thr Glu Asn Ile Tyr Pro Arg Asp Glu
130 135 140
Phe Leu Glu Gly His Asp Asp Met Thr Leu Arg Val Lys Trp Pro Pro
145 150 155 160
Phe Glu Ser

<210> 77

<211> 717

<212> DNA

<213> Artificial Sequence

<220>

<223> Synthetically generated

<400> 77

atgaaggggg tgaaggaagt aatgaagatc agtctggaga tggagggcgc tggtaacggc 60
caccacttta cgatcaaagg ggaaggagga ggataccctt acgaaggagt acagtttatg 120
tctcttgaag tggtaatgg cgcgcctgt ccgttttctt tcgatattt gacaccagca 180
tttatgtatg gaaaccgtgt attcacccaa tacccaaaag agataccaga ctatttcaag 240
cagaccttc ctgaaggcta tcactggag cgaataatga ctttgagga cggggcgta 300
tgttgcata caagcgacat cagtgtaaaa ggtgactctt tcttctatga cattaagtcc 360
actggcatga actttccccc tcatggtcca gtgtgcaga gaaagacagt aaaatgggag 420
ccatccactg aacgattgtt tcttcgcac ggtgtgcgtg cgggacatga cgacatgact 480
ctgcgggttg aagggtggcg ccattacaca tgtgtctta aaactattta cagatccaag 540
aagaaggctg agaatatgcc tgactaccat ttatagacc accgcattga gattctggc 600
aacccagaag acaagccgtt caagctgtac gagattgcta cagctcgcca tcataggctg 660
aaggtaagc ctatccctaa cccttcctc ggactcgtac cggttag 717

<210> 78

<211> 238

<212> PRT

<213> Artificial Sequence

<220>

<223> Synthetically generated

<400> 78

Met Lys Gly Val Lys Glu Val Met Lys Ile Ser Leu Glu Met Glu Gly
1 5 10 15
Ala Val Asn Gly His His Phe Thr Ile Lys Glu Gly Gly Gly Tyr
20 25 30
Pro Tyr Glu Gly Val Gln Phe Met Ser Leu Glu Val Val Asn Gly Ala

	35		40		45										
Pro	Leu	Pro	Phe	Ser	Phe	Asp	Ile	Leu	Thr	Pro	Ala	Phe	Met	Tyr	Gly
	50			55				60							
Asn	Arg	Val	Phe	Thr	Lys	Tyr	Pro	Lys	Glu	Ile	Pro	Asp	Tyr	Phe	Lys
	65			70				75							80
Gln	Thr	Phe	Pro	Glu	Gly	Tyr	His	Trp	Glu	Arg	Ile	Met	Thr	Phe	Glu
				85				90							95
Asp	Gly	Gly	Val	Cys	Cys	Ile	Thr	Ser	Asp	Ile	Ser	Val	Lys	Gly	Asp
			100				105							110	
Ser	Phe	Phe	Tyr	Asp	Ile	Lys	Phe	Thr	Gly	Met	Asn	Phe	Pro	Pro	His
			115			120		125							
Gly	Pro	Val	Met	Gln	Arg	Lys	Thr	Val	Lys	Trp	Glu	Pro	Ser	Thr	Glu
			130			135		140							
Arg	Leu	Tyr	Leu	Arg	Asp	Gly	Val	Leu	Thr	Gly	His	Asp	Asp	Met	Thr
	145			150				155							160
Leu	Arg	Val	Glu	Gly	Gly	Gly	His	Tyr	Thr	Cys	Val	Phe	Lys	Thr	Ile
				165				170							175
Tyr	Arg	Ser	Lys	Lys	Lys	Val	Glu	Asn	Met	Pro	Asp	Tyr	His	Phe	Ile
			180			185		190							
Asp	His	Arg	Ile	Glu	Ile	Leu	Gly	Asn	Pro	Glu	Asp	Lys	Pro	Val	Lys
			195			200		205							
Leu	Tyr	Glu	Ile	Ala	Thr	Ala	Arg	His	His	Gly	Leu	Lys	Gly	Lys	Pro
	210			215			220								
Ile	Pro	Asn	Pro	Leu	Leu	Gly	Leu	Asp	Ser	Thr	Arg	Thr	Gly		
	225			230			235								

<210> 79

<211> 726

<212> DNA

<213> Artificial Sequence

<220>

<223> Synthetically generated

<400> 79

atgaaggggg	tgaaggaagt	aatgaagatc	agtctggaga	tggagggcgc	tgttaacggc	60
caccactta	cgatcaaagg	ggaaggagga	ggataccctt	acgaaggaac	aaattttgt	120
aaaccttgt	tgacgaaagg	cgggcctctg	ccgtttctt	tgcataatatt	gacaccacaa	180
ttacatgtat	gaaaacaagt	attcgtcagc	tacccaaaag	agataccaga	ctatttcaag	240
cagacccccc	ctgaaggcta	tcactggag	cgaaaaatga	cttatgagga	cggggcata	300
agtaacgtcc	gaagccacat	caggatgaaa	gaggaagagg	agccgcattt	cttctatgac	360
attaaggtca	ctggcatgaa	ctttccctcct	catggtcag	tatgcagag	aaagacagta	420
aatatgggagc	catccactga	aaacatttat	cctcgcgac	aatttctgga	gggacatgac	480
gacatgactc	tgcgggttga	aggtggcggc	cattacacat	gtgtctttaa	aactattac	540
agatccaagc	actcgatcaa	catgccggat	ttccatttt	tagaccaccg	cattgagatt	600
atggagcatg	accgaggacta	caaccatgtc	aagctgcgcg	agattgctac	agctcgccat	660
catggctga	agggttaagcc	tatccctaac	cctctccctcg	gactcgattc	tacgcgtacc	720
ggtag						726

<210> 80

<211> 241

<212> PRT

<213> Artificial Sequence

<220>

<223> Synthetically generated

<400> 80

Met	Lys	Gly	Val	Lys	Glu	Val	Met	Lys	Ile	Ser	Leu	Glu	Met	Glu	Gly
1			5			10		15							
Ala	Val	Asn	Gly	His	His	Phe	Thr	Ile	Lys	Gly	Glu	Gly	Gly	Tyr	
				20		25		30							
Pro	Tyr	Glu	Gly	Thr	Asn	Phe	Val	Lys	Leu	Val	Val	Thr	Lys	Gly	Gly
				35		40		45							

Pro Leu Pro Phe Ser Phe Asp Ile Leu Thr Pro Gln Leu Gln Tyr Gly
 50 55 60
 Asn Lys Ser Phe Val Ser Tyr Pro Lys Glu Ile Pro Asp Tyr Phe Lys
 65 70 75 80
 Gln Thr Phe Pro Glu Gly Tyr His Trp Glu Arg Lys Met Thr Tyr Glu
 85 90 95
 Asp Gly Gly Ile Ser Asn Val Arg Ser His Ile Arg Met Lys Glu Glu
 100 105 110
 Glu Glu Arg His Phe Phe Tyr Asp Ile Lys Phe Thr Gly Met Asn Phe
 115 120 125
 Pro Pro His Gly Pro Val Met Gln Arg Lys Thr Val Lys Trp Glu Pro
 130 135 140
 Ser Thr Glu Asn Ile Tyr Pro Arg Asp Glu Phe Leu Glu Gly His Asp
 145 150 155 160
 Asp Met Thr Leu Arg Val Glu Gly Gly His Tyr Thr Cys Val Phe
 165 170 175
 Lys Thr Ile Tyr Arg Ser Lys His Ser Ile Asn Met Pro Asp Phe His
 180 185 190
 Phe Ile Asp His Arg Ile Glu Ile Met Glu His Asp Glu Asp Tyr Asn
 195 200 205
 His Val Lys Leu Arg Glu Ile Ala Thr Ala Arg His His Gly Leu Lys
 210 215 220
 Gly Lys Pro Ile Pro Asn Pro Leu Leu Gly Leu Asp Ser Thr Arg Thr
 225 230 235 240
 Gly

<210> 81
 <211> 726
 <212> DNA
 <213> Artificial Sequence

<220>
 <223> Synthetically generated

<400> 81
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 acttttaacg gccacaatt tgagatcaa ggggagggaa acggaaaacc ttacgcagga 120
 gtacagttt tgcgttgc agtggtaat ggcgcgcctc tgccgtttc ttgcata 180
 ttgacaccag catttatgtt tggaaaccgt gtattcacca aatacccaa agagatacca 240
 gactattca agcagaccc tcctgaaggc tatcactggg agcataat gacttttgag 300
 gacggggcg tatgttgcatt cacaagcgc acatgttgc aagggtactc ttcttctat 360
 gacattaagt tcaactggcat gaactttccct cctaattggc cagtgtgc gaggaggata 420
 cgaggatggg agccatccac tgaaaaacatt tatcctcgcg acgaatttct ggagggacat 480
 gacgacatga ctctgcgggt tgaagggtggc ggccattaca catgtgtctt taaaactatt 540
 tacagatcca agcactcgat caacatggcc gatttccatt ttatagacca ccgcatttag 600
 attctggca acccagaaga caagccggc aagctgtacg agattgtac agctcgccat 660
 catgggctga agggtaagcc tatccctaac ccttcctcg gactcgattc tacgcgtacc 720
 ggttag 726

<210> 82
 <211> 241
 <212> PRT
 <213> Artificial Sequence

<220>
 <223> Synthetically generated

<400> 82
 Met Ser His Ser Lys Ser Val Ile Lys Asp Glu Met Phe Ile Lys Ile
 1 5 10 15
 His Leu Glu Gly Thr Phe Asn Gly His Lys Phe Glu Ile Glu Gly Glu
 20 25 30
 Gly Asn Gly Lys Pro Tyr Ala Gly Val Gln Phe Met Ser Leu Glu Val
 Page 40

	35	40	45
Val	Asn	Gly	Ala Pro Leu Pro Phe Ser Phe Asp Ile Leu Thr Pro Ala
	50		55 60
Phe	Met	Tyr	Gly Asn Arg Val Phe Thr Lys Tyr Pro Lys Glu Ile Pro
65		70	75 80
Asp	Tyr	Phe	Lys Gln Thr Phe Pro Glu Gly Tyr His Trp Glu Arg Ile
	85		90 95
Met	Thr	Phe	Glu Asp Gly Gly Val Cys Cys Ile Thr Ser Asp Ile Ser
	100		105 110
Val	Lys	Gly	Asp Ser Phe Phe Tyr Asp Ile Lys Phe Thr Gly Met Asn
	115		120 125
Phe	Pro	Pro	Asn Gly Pro Val Met Gln Arg Arg Ile Arg Gly Trp Glu
130			135 140
Pro	Ser	Thr	Glu Asn Ile Tyr Pro Arg Asp Glu Phe Leu Glu Gly His
145			150 155 160
Asp	Asp	Met	Thr Leu Arg Val Glu Gly Gly His Tyr Thr Cys Val
	165		170 175
Phe	Lys	Thr	Ile Tyr Arg Ser Lys His Ser Ile Asn Met Pro Asp Phe
	180		185 190
His	Phe	Ile	Asp His Arg Ile Glu Ile Leu Gly Asn Pro Glu Asp Lys
	195		200 205
Pro	Val	Lys	Leu Tyr Glu Ile Ala Thr Ala Arg His His Gly Leu Lys
210			215 220
Gly	Lys	Pro	Ile Pro Asn Pro Leu Leu Gly Leu Asp Ser Thr Arg Thr
225			230 235 240
Gly			

<210> 83
<211> 717
<212> DNA
<213> Artificial Sequence

<220>
<223> Synthetically generated

<400> 83

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gacaatttg	agatcgaagg	ggagggaaac	ggaaaacctt	acgcaggAAC	aaattttgtA	120
aaacctttag	tgacgaaagg	cgggcctctg	acgttttctt	tgcgtgtatt	gacaccacAA	180
ttacagtatg	gaaacaagtc	attcgtcagc	tacccaaag	agataccaga	ctatTTcaAG	240
cagacctttc	ctgaaggctA	tcactgggag	cgaataatga	cttttgagGA	cgggggcgtA	300
tgttgcata	caagcgacat	cagtgtgaaa	ggtgactctt	tctactataa	gattcacttc	360
actggcgagt	ttcctccTCA	tggtccagtG	atgcagagAA	agacagtaAA	atgggagGCC	420
tccactgaaa	acatttatcc	tcgcgacgaa	tttctggagg	gacatgacgA	catgactCTG	480
cgggttgaag	gtggcggctA	ttacagagct	gaatttagAA	gttcttacAA	aggcaagaAG	540
aacccacgc	ttccggattG	cttcttattat	gtagaccca	aacttgagat	tatggagcat	600
gacgaggact	acaaccatgt	caagctgcgc	gagattgcta	cagctcgcca	tcatgggctg	660
aagggttaAGC	ctatccctaa	ccctctccTC	ggactcgatt	ctacgcgtac	cggttag	717

<210> 84
<211> 238
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetically generated

<400> 84

Met	Lys	Gly	Val	Lys	Glu	Val	Met	Lys	Ile	Ser	Leu	Glu	Met	Asp	Cys	
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Thr	Val	Asn	Gly	Asp	Lys	Phe	Glu	Ile	Glu	Gly	Glu	Gly	Asn	Gly	Lys	
						20		25		30						
Pro	Tyr	Ala	Gly	Thr	Asn	Phe	Val	Lys	Leu	Val	Val	Thr	Lys	Gly	Gly	

Pro	Leu	Thr	Phe	Ser	Phe	Asp	Val	Leu	Thr	Pro	Gln	Leu	Gln	Tyr	Gly
50					55					60					
Asn	Lys	Ser	Phe	Val	Ser	Tyr	Pro	Lys	Glu	Ile	Pro	Asp	Tyr	Phe	Lys
65					70				75					80	
Gln	Thr	Phe	Pro	Glu	Gly	Tyr	His	Trp	Glu	Arg	Ile	Met	Thr	Phe	Glu
					85				90				95		
Asp	Gly	Gly	Val	Cys	Cys	Ile	Thr	Ser	Asp	Ile	Ser	Val	Lys	Gly	Asp
					100			105					110		
Ser	Phe	Tyr	Tyr	Lys	Ile	His	Phe	Thr	Gly	Glu	Phe	Pro	Pro	His	Gly
					115			120				125			
Pro	Val	Met	Gln	Arg	Lys	Thr	Val	Lys	Trp	Glu	Pro	Ser	Thr	Glu	Asn
					130			135				140			
Ile	Tyr	Pro	Arg	Asp	Glu	Phe	Leu	Glu	Gly	His	Asp	Asp	Met	Thr	Leu
145					150				155				160		
Arg	Val	Glu	Gly	Gly	Gly	Tyr	Tyr	Arg	Ala	Glu	Phe	Arg	Ser	Ser	Tyr
					165				170				175		
Lys	Gly	Lys	Lys	Asn	Leu	Thr	Leu	Pro	Asp	Cys	Phe	Tyr	Tyr	Val	Asp
					180			185				190			
Thr	Lys	Leu	Glu	Ile	Met	Glu	His	Asp	Glu	Asp	Tyr	Asn	His	Val	Lys
					195			200				205			
Leu	Arg	Glu	Ile	Ala	Thr	Ala	Arg	His	His	Gly	Leu	Lys	Gly	Lys	Pro
					210			215				220			
Ile	Pro	Asn	Pro	Leu	Leu	Gly	Leu	Asp	Ser	Thr	Arg	Thr	Gly		
					225			230				235			

<210> 85

<211> 546

<212> DNA

<213> Artificial Sequence

<220>

<223> Synthetically generated

<400> 85

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gactatatca	agctgtcctt	tcctgagggc	tttacctggg	agcgaagcat	tcctttcaa	120
gaccggcct	catgtaccgt	cacaagcgac	atcagtatga	aaagtaacaa	ctgtttctac	180
tataagattc	acttcactgg	cgaggttcct	cctaattgttc	cagtgtatgc	gaggaggata	240
cgaggatggg	agccatccac	tgaacgattt	tatcttcgcg	acggtgtgtct	gacgggagat	300
atccacaaga	ctctgaaact	tagcggtggc	ggcttattaca	gagctgaatt	tagaaggttct	360
tacaaaggca	acgactcgat	caacatgccg	gatttccatt	ttatagacca	ccgcatttgag	420
attctgggca	accccagaaga	caagccggtc	aagctgtacg	agattgtctac	agctcgccat	480
catgggctga	agggttaagcc	tatccctaac	cctctccctcg	gactcgattc	tacgcgtacc	540
ggttag						546

<210> 86

<211> 181

<212> PRT

<213> Artificial Sequence

<220>

<223> Synthetically generated

<400> 86

Met	Thr	Pro	Ala	Phe	Met	Tyr	Gly	Asn	Arg	Val	Phe	Thr	Lys	Tyr	Pro
1					5			10				15			
Ala	Asp	Ile	Pro	Asp	Tyr	Ile	Lys	Leu	Ser	Phe	Pro	Glu	Gly	Phe	Thr
					20			25				30			
Trp	Glu	Arg	Ser	Ile	Pro	Phe	Gln	Asp	Gln	Ala	Ser	Cys	Thr	Val	Thr
					35			40				45			
Ser	Asp	Ile	Ser	Met	Lys	Ser	Asn	Asn	Cys	Phe	Tyr	Tyr	Lys	Ile	His
					50			55				60			
Phe	Thr	Gly	Glu	Phe	Pro	Pro	Asn	Gly	Pro	Val	Met	Gln	Arg	Arg	Ile

65	70	75	80												
Arg	Gly	Trp	Glu	Pro	Ser	Thr	Glu	Arg	Leu	Tyr	Leu	Arg	Asp	Gly	Val
				85		90							95		
Leu	Thr	Gly	Asp	Ile	His	Lys	Thr	Leu	Lys	Leu	Ser	Gly	Gly	Tyr	
				100		105							110		
Tyr	Arg	Ala	Glu	Phe	Arg	Ser	Ser	Tyr	Lys	Gly	Lys	His	Ser	Ile	Asn
				115		120							125		
Met	Pro	Asp	Phe	His	Phe	Ile	Asp	His	Arg	Ile	Glu	Ile	Leu	Gly	Asn
				130		135							140		
Pro	Glu	Asp	Lys	Pro	Val	Lys	Leu	Tyr	Glu	Ile	Ala	Thr	Ala	Arg	His
				145		150							155		
His	Gly	Leu	Lys	Gly	Lys	Pro	Ile	Pro	Asn	Pro	Leu	Leu	Gly	Leu	Asp
				165									170		
Ser	Thr	Arg	Thr	Gly											
				180											

<210> 87

<211> 717

<212> DNA

<213> Artificial Sequence

<220>

<223> Synthetically generated

<400> 87

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tctcttgaag	tggtaatgg	cgcgcctctg	ccgttttctt	tcatatattt	gacaccagca	180
tttatgtatg	gaaaccgtgt	attcacaaa	tacccagccg	ataaccaga	ctatatcaag	240
ctgtccttc	ctgagggcct	tacctggag	cgaataatga	cttttgagga	cgggggcgta	300
tgttgcata	caagcgacat	cagttgtaaa	ggtgactctt	tcttctatga	cattaagttc	360
actggcatga	actttccccc	tcatggtcca	gtgatgcaga	gaaagacagt	aaaatgggag	420
ccatccactg	aaaacattta	tcctcgcgac	gaatttctgg	agggagatgt	caacatggct	480
ctgttgccta	aagatggcgg	ccattacaca	tgtgtctta	aaactattta	cagatccaag	540
cactcgatca	acatgccgga	tttccatttt	atagaccacc	gcattgatat	tcggaagttc	600
gacgaaaatt	acatcaacgt	cgagcaggac	gagattgcta	cagctcgcca	tcatgggctg	660
aaggtaagc	ctatccctaa	ccctctccctc	ggactcgatt	ctacgcgtac	cggttag	717

<210> 88

<211> 238

<212> PRT

<213> Artificial Sequence

<220>

<223> Synthetically generated

<400> 88

Met	Lys	Gly	Val	Lys	Glu	Val	Met	Lys	Ile	Ser	Leu	Glu	Met	Asp	Cys
1															
Thr	Val	Asn	Gly	Asp	Lys	Phe	Thr	Ile	Lys	Gly	Glu	Gly	Gly	Tyr	
				20		25						30			
Pro	Tyr	Glu	Val	Gln	Phe	Met	Ser	Leu	Glu	Val	Val	Asn	Gly	Ala	
				35		40						45			
Pro	Leu	Pro	Phe	Ser	Phe	Asp	Ile	Leu	Thr	Pro	Ala	Phe	Met	Tyr	Gly
				50		55						60			
Asn	Arg	Val	Phe	Thr	Lys	Tyr	Pro	Ala	Asp	Ile	Pro	Asp	Tyr	Ile	Lys
				65		70						75		80	
Leu	Ser	Phe	Pro	Glu	Gly	Phe	Thr	Trp	Glu	Arg	Ile	Met	Thr	Phe	Glu
				85		90						95			
Asp	Gly	Gly	Val	Cys	Cys	Ile	Thr	Ser	Asp	Ile	Ser	Val	Lys	Gly	Asp
				100		105						110			
Ser	Phe	Phe	Tyr	Asp	Ile	Lys	Phe	Thr	Gly	Met	Asn	Phe	Pro	Pro	His
				115		120						125			
Gly	Pro	Val	Met	Gln	Arg	Lys	Thr	Val	Lys	Trp	Glu	Pro	Ser	Thr	Glu

	130	135	140												
Asn	Ile	Tyr	Pro	Arg	Asp	Glu	Phe	Leu	Glu	Gly	Asp	Val	Asn	Met	Ala
145					150				155					160	
Leu	Leu	Leu	Lys	Asp	Gly	Gly	His	Tyr	Thr	Cys	Val	Phe	Lys	Thr	Ile
					165			170					175		
Tyr	Arg	Ser	Lys	His	Ser	Ile	Asn	Met	Pro	Asp	Phe	His	Phe	Ile	Asp
					180			185				190			
His	Arg	Ile	Asp	Ile	Arg	Lys	Phe	Asp	Glu	Asn	Tyr	Ile	Asn	Val	Glu
					195			200			205				
Gln	Asp	Glu	Ile	Ala	Thr	Ala	Arg	His	His	Gly	Leu	Lys	Gly	Lys	Pro
					210			215			220				
Ile	Pro	Asn	Pro	Leu	Leu	Gly	Leu	Asp	Ser	Thr	Arg	Thr	Gly		
					225			230			235				

<210> 89

<211> 732

<212> DNA

<213> Artificial Sequence

<220>

<223> Synthetically generated

<400> 89

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gtacagttt	tgtctcttga	agtggtaat	ggcgccctc	tgcgtttt	tttcgatata	180
ttgacaccag	catttcagta	tggaaaccgt	acattcacca	aatacccaa	agagatacca	240
gactatttca	agcagaccc	tcctgaaggc	tatcactgg	agcggaaaat	gacttatgag	300
gacggggca	taagtaacgt	ccgaagcgac	atcagtgtga	aagggtactc	tttcttctat	360
gacattaagt	tcactggcat	gaactttcct	cctcatggtc	cagtgatgca	gagaaagaca	420
gtaaaaatggg	agccatccac	tgaaaacatt	tatcctcg	acgaatttct	ggagggagat	480
gtcaacatgg	ctctgttgc	taaagatggc	cgccatttga	gagttgactt	taacacttct	540
tacataccca	agaagaaggt	cgagaatatg	cctgactacc	atttataga	ccaccgcatt	600
gagattatgg	agcatgacga	ggactacaac	catgtcaagc	tgcgcgagat	tgctacagct	660
cgcacatcatg	ggctgaaggg	taagcctatc	cctaaccctc	tcctcggact	cgattctacg	720
cgtaccgggtt	ag					732

<210> 90

<211> 243

<212> PRT

<213> Artificial Sequence

<220>

<223> Synthetically generated

<400> 90

Met	Ser	His	Ser	Lys	Ser	Val	Ile	Lys	Asp	Glu	Met	Phe	Ile	Lys	Ile
1					5			10			15				
His	Leu	Glu	Gly	Thr	Phe	Asn	Gly	His	Lys	Phe	Thr	Ile	Lys	Glu	
					20			25			30				
Gly	Gly	Gly	Tyr	Pro	Tyr	Glu	Gly	Val	Gln	Phe	Met	Ser	Leu	Glu	Val
					35			40			45				
Val	Asn	Gly	Ala	Pro	Leu	Pro	Phe	Ser	Phe	Asp	Ile	Leu	Thr	Pro	Ala
					50			55			60				
Phe	Gln	Tyr	Gly	Asn	Arg	Thr	Phe	Thr	Lys	Tyr	Pro	Lys	Glu	Ile	Pro
					65			70			75			80	
Asp	Tyr	Phe	Lys	Gln	Thr	Phe	Pro	Glu	Gly	Tyr	His	Trp	Glu	Arg	Lys
					85			90			95				
Met	Thr	Tyr	Glu	Asp	Gly	Gly	Ile	Ser	Asn	Val	Arg	Ser	Asp	Ile	Ser
					100			105			110				
Val	Lys	Gly	Asp	Ser	Phe	Phe	Tyr	Asp	Ile	Lys	Phe	Thr	Gly	Met	Asn
					115			120			125				
Phe	Pro	Pro	His	Gly	Pro	Val	Met	Gln	Arg	Lys	Thr	Val	Lys	Trp	Glu
					130			135			140				

Pro Ser Thr Glu Asn Ile Tyr Pro Arg Asp Glu Phe Leu Glu Gly Asp
 145 150 155 160
 Val Asn Met Ala Leu Leu Leu Lys Asp Gly Arg His Leu Arg Val Asp
 165 170 175
 Phe Asn Thr Ser Tyr Ile Pro Lys Lys Lys Val Glu Asn Met Pro Asp
 180 185 190
 Tyr His Phe Ile Asp His Arg Ile Glu Ile Met Glu His Asp Glu Asp
 195 200 205
 Tyr Asn His Val Lys Leu Arg Glu Ile Ala Thr Ala Arg His His Gly
 210 215 220
 Leu Lys Gly Lys Pro Ile Pro Asn Pro Leu Leu Gly Leu Asp Ser Thr
 225 230 235 240
 Arg Thr Gly

<210> 91

<211> 723

<212> DNA

<213> Artificial Sequence

<220>

<223> Synthetically generated

<400> 91

atgaaggggg	tgaaggaagt	aatgaagatc	agtctggaga	tggactgcac	tgttaacggc	60
gacaattta	cgtcaaaagg	ggaaggaggaa	ggataccctt	acgaaggagt	acagtttatg	120
tctcttgaag	tggtaatgg	cgcgcctctg	ccgttttctt	tcgatatatt	gacaccacaa	180
ttacagtatg	gaaacaagtc	attcgtcagc	tacccagccg	ataattacca	ctatatcaag	240
ctgtccttc	ctgagggctt	tacctgggag	cgaataatga	cttttgagga	cggggcgta	300
tgttgcata	caagcgacat	cagtgtgaaa	ggtgactctt	tctactataa	gattcacttc	360
actggcgagt	ttcctccctca	tggtccagtg	atgcagagaa	agacagtaaa	atgggagcca	420
tccactgaag	taatgtatgt	tgacgacaag	agtgacggtg	tgctgaaggg	agatgtcaac	480
atggctctgt	tgcttaaaga	tggcggccat	tacacatgtg	tctttaaaac	tattnacaga	540
tccaagaaga	aggtcgagaa	tatgcctgac	taccattta	tagaccaccg	cattgagatt	600
ctggccaacc	cagaagacaa	gccggtcaag	ctgtacgaga	ttgctacagc	tcgcccattat	660
gggctgaagg	gtaagcctat	ccctaaccct	ctcctcgac	tcgattctac	gcgtaccggt	720
tag						723

<210> 92

<211> 240

<212> PRT

<213> Artificial Sequence

<220>

<223> Synthetically generated

<400> 92

Met Lys Gly Val Lys Glu Val Met Lys Ile Ser Leu Glu Met Asp Cys						
1 5 10 15						
Thr Val Asn Gly Asp Lys Phe Thr Ile Lys Gly Glu Gly Gly Tyr						
20 25 30						
Pro Tyr Glu Gly Val Gln Phe Met Ser Leu Glu Val Val Asn Gly Ala						
35 40 45						
Pro Leu Pro Phe Ser Phe Asp Ile Leu Thr Pro Gln Leu Gln Tyr Gly						
50 55 60						
Asn Lys Ser Phe Val Ser Tyr Pro Ala Asp Ile Pro Asp Tyr Ile Lys						
65 70 75 80						
Leu Ser Phe Pro Glu Gly Phe Thr Trp Glu Arg Ile Met Thr Phe Glu						
85 90 95						
Asp Gly Gly Val Cys Cys Ile Thr Ser Asp Ile Ser Val Lys Gly Asp						
100 105 110						
Ser Phe Tyr Tyr Lys Ile His Phe Thr Gly Glu Phe Pro Pro His Gly						
115 120 125						
Pro Val Met Gln Arg Lys Thr Val Lys Trp Glu Pro Ser Thr Glu Val						

130	135	140
Met Tyr Val Asp Asp Lys	Ser Asp Gly Val	Leu Lys Gly Asp Val Asn
145	150	155
Met Ala Leu Leu Leu Lys Asp Gly Gly	His Tyr Thr Cys Val Phe Lys	
165	170	175
Thr Ile Tyr Arg Ser Lys Lys Val Glu Asn Met Pro Asp Tyr His		
180	185	190
Phe Ile Asp His Arg Ile Glu Ile Leu Gly Asn Pro Glu Asp Lys Pro		
195	200	205
Val Lys Leu Tyr Glu Ile Ala Thr Ala Arg His His Gly Leu Lys Gly		
210	215	220
Lys Pro Ile Pro Asn Pro Leu Leu Gly Leu Asp Ser Thr Arg Thr Gly		
225	230	235
		240

<210> 93

<211> 732

<212> DNA

<213> Artificial Sequence

<220>

<223> Synthetically generated

<400> 93

atgaaggggg tgaaggaagt aatgaagatc agtctggaga tggagggcgc tggtaacggc	60
caccacttta cgatcaaagg ggaaggagga ggataccctt acgaaggagt acagtttatg	120
tctcttgaag tggtaatgg cgcgcctgt ccgttttctt tcgatatatg gacaccagca	180
tttatgtatg gaaaccgtgt attcacaaa tacccaaag agataccaga ctatttcaag	240
cagacccccc ctgaaggcgtc tcactggag cgaaaaatga cttatggaga cggggcata	300
agtaacgtcc gaagccacat caggatgaaa gaggaagagg agccgcattt ctactataag	360
attcacttca ctggcgagtt tcctctcat ggtccagtga tgccagagaaa gacagtaaaa	420
tgggagccat ccactgaagt aatgtatgtt gacgacaaga gtgacggtgt gctgaaggga	480
gatgtcaaca tggctctgtt gcttaaagat ggccgcatt tgagagttga cttaacact	540
tcttacatac ccaagaagaa ggtcgagaat atgcctgact accattttat agaccaccgc	600
attgagattc tgggcaaccc agaagacaag cgggtcaagc tgtacgagat tgctacagct	660
cgcacatcatg ggctgaaggg taagcctatc cctaaccctc tcctcgact cgattctacg	720
cgtaccgggtt ag	732

<210> 94

<211> 243

<212> PRT

<213> Artificial Sequence

<220>

<223> Synthetically generated

<400> 94

Met Lys Gly Val Lys Glu Val Met Lys Ile Ser Leu Glu Met Glu Gly	
1 5 10 15	
Ala Val Asn Gly His His Phe Thr Ile Lys Gly Glu Gly Gly Tyr	
20 25 30	
Pro Tyr Glu Gly Val Gln Phe Met Ser Leu Glu Val Val Asn Gly Ala	
35 40 45	
Pro Leu Pro Phe Ser Phe Asp Ile Leu Thr Pro Ala Phe Met Tyr Gly	
50 55 60	
Asn Arg Val Phe Thr Lys Tyr Pro Lys Glu Ile Pro Asp Tyr Phe Lys	
65 70 75 80	
Gln Thr Phe Pro Glu Gly Tyr His Trp Glu Arg Lys Met Thr Tyr Glu	
85 90 95	
Asp Gly Gly Ile Ser Asn Val Arg Ser His Ile Arg Met Lys Glu Glu	
100 105 110	
Glu Glu Arg His Phe Tyr Tyr Lys Ile His Phe Thr Gly Glu Phe Pro	
115 120 125	
Pro His Gly Pro Val Met Gln Arg Lys Thr Val Lys Trp Glu Pro Ser	
130 135 140	

Thr Glu Val Met Tyr Val Asp Asp Lys Ser Asp Gly Val Leu Lys Gly
 145 150 155 160
 Asp Val Asn Met Ala Leu Leu Lys Asp Gly Arg His Leu Arg Val
 165 170 175
 Asp Phe Asn Thr Ser Tyr Ile Pro Lys Lys Lys Val Glu Asn Met Pro
 180 185 190
 Asp Tyr His Phe Ile Asp His Arg Ile Glu Ile Leu Gly Asn Pro Glu
 195 200 205
 Asp Lys Pro Val Lys Leu Tyr Glu Ile Ala Thr Ala Arg His His Gly
 210 215 220
 Leu Lys Gly Lys Pro Ile Pro Asn Pro Leu Leu Gly Leu Asp Ser Thr
 225 230 235 240
 Arg Thr Gly

<210> 95

<211> 744

<212> DNA

<213> Artificial Sequence

<220>

<223> Synthetically generated

<400> 95

atgagtcatt	ccaagagtgt	gatcaaggac	gaaatgttca	tcaagattca	tctggaaggc	60
acttttaacg	gccacaatt	tgagatcgaa	ggggagggaa	acgaaaacc	ttacgcagga	120
gtacagttt	tgtcttta	agtggtaat	ggcgcgcctc	tgacgtttt	tttcgatgt	180
ttgacaccag	catttcagta	tggaaaccgt	acattcacca	aatacccaa	agagatacca	240
gactatttca	agcagaccc	tccttgaaggc	tatcactgg	agcgaataat	gacttttag	300
gacgggggcg	ttatgttgc	cacaagcgac	atcagtatga	aaagtaacaa	ctgttttac	360
tataagattc	acttcactgg	cgagtttcct	cctcatgtc	cagtgtatgc	gagaaagaca	420
gtaaaatggg	agccatccac	tgaaaaacatt	tatcctcg	acgaatttct	ggagggagat	480
gtcaacatgg	ctctgttgc	taaagatggc	cgccatttga	gagttgactt	taacacttct	540
tacataccca	agaagaaggt	cgagaatatg	cctgactacc	attttataga	ccaccgcatt	600
gagattatgg	agcatgacga	ggactacaac	catgtcaagc	tgccgcgagt	tgctgtagct	660
cgctattctc	tgctgcctga	gaagaacaag	ggtaagccta	tcccttaaccc	tctcctcgga	720
ctcgattcta	cgcgtaccgg	tttag				744

<210> 96

<211> 247

<212> PRT

<213> Artificial Sequence

<220>

<223> Synthetically generated

<400> 96

Met Ser His Ser Lys Ser Val Ile Lys Asp Glu Met Phe Ile Lys Ile						
1	5	10	15			
His Leu Glu Gly Thr Phe Asn Gly His Lys Phe Glu Ile Glu Gly Glu						
20	25	30				
Gly Asn Gly Lys Pro Tyr Ala Gly Val Gln Phe Met Ser Leu Glu Val						
35	40	45				
Val Asn Gly Ala Pro Leu Thr Phe Ser Phe Asp Val Leu Thr Pro Ala						
50	55	60				
Phe Gln Tyr Gly Asn Arg Thr Phe Thr Lys Tyr Pro Lys Glu Ile Pro						
65	70	75	80			
Asp Tyr Phe Lys Gln Thr Phe Pro Glu Gly Tyr His Trp Glu Arg Ile						
85	90	95				
Met Thr Phe Glu Asp Gly Gly Val Cys Cys Ile Thr Ser Asp Ile Ser						
100	105	110				
Met Lys Ser Asn Asn Cys Phe Tyr Tyr Lys Ile His Phe Thr Gly Glu						
115	120	125				
Phe Pro Pro His Gly Pro Val Met Gln Arg Lys Thr Val Lys Trp Glu						

130	135	140		
Pro Ser Thr Glu Asn Ile	Tyr Pro Arg Asp Glu	Phe Leu Glu Gly Asp		
145	150	155	160	
Val Asn Met Ala Leu	Leu Lys Asp Gly Arg His	Leu Arg Val Asp		
	165	170	175	
Phe Asn Thr Ser Tyr Ile	Pro Lys Lys Val Glu Asn	Met Pro Asp		
	180	185	190	
Tyr His Phe Ile Asp His	Arg Ile Glu Ile Met Glu	His Asp Glu Asp		
	195	200	205	
Tyr Asn His Val Lys Leu	Glu Cys Ala Val Ala	Arg Tyr Ser Leu		
	210	215	220	
Leu Pro Glu Lys Asn Lys	Gly Lys Pro Ile Pro Asn	Pro Leu Leu Gly		
	225	230	235	240
Leu Asp Ser Thr Arg Thr	Gly			
	245			

<210> 97

<211> 558

<212> DNA

<213> Artificial Sequence

<220>

<223> Synthetically generated

<400> 97

atggaaaccg	tgtattcacc	aaatacccg	gcaatatacc	agacttttc	aaggcagaccg	60
tttctggggc	gggtataaccg	ggagcgaaaa	atgacttatg	aggacggggg	cataagttaac	120
gtccgaagcc	acatcaggat	gaaagaggaa	gaggagccgc	atttctacta	taagattcac	180
ttcactggcg	agtttcctcc	tcatggtcca	tgatgcaga	gaaagacagt	aaaatgggag	240
ccatccactg	aagtaatgt	tgttgcacg	aagagtgcacg	gtgtgctgaa	gggacatgac	300
gacatgactc	tgcgggttga	aggtggcgcc	tattacagag	ctgaatttag	aagttcttac	360
aaaggcaaga	agaaggcgtca	gaatatgcct	gactaccatt	ttatagacca	ccgcatttgag	420
attctgggca	accccagaaga	caagccggc	aagctgtacg	agtgtgctgt	agctcgctat	480
tctctgctgc	ctgagaagaa	caagggtaa	cctatcccta	accctctcct	cggactcgat	540
tctacgcgt	ccggtag					558

<210> 98

<211> 185

<212> PRT

<213> Artificial Sequence

<220>

<223> Synthetically generated

<400> 98

Met Glu Thr Val Tyr Ser Pro Asn Thr Gln Ala Ile	Tyr Gln Thr Phe		
1	5	10	15
Ser Ser Arg Pro Phe Leu Gly Arg Val	Tyr Arg Glu Arg Lys	Met Thr	
20	25	30	
Tyr Glu Asp Gly Gly Ile Ser Asn Val Arg Ser His	Ile Arg Met Lys		
35	40	45	
Glu Glu Glu Glu Arg His Phe Tyr Tyr Lys Ile His	Phe Thr Gly Glu		
50	55	60	
Phe Pro Pro His Gly Pro Val Met Gln Arg Lys	Thr Val Lys Trp Glu		
65	70	75	80
Pro Ser Thr Glu Val Met Tyr Val Asp Asp Lys	Ser Asp Gly Val Leu		
85	90	95	
Lys Gly His Asp Asp Met Thr Leu Arg Val Glu Gly	Gly Tyr Tyr		
100	105	110	
Arg Ala Glu Phe Arg Ser Ser Tyr Lys Gly Lys Lys	Val Glu Asn		
115	120	125	
Met Pro Asp Tyr His Phe Ile Asp His Arg Ile Glu	Ile Leu Gly Asn		
130	135	140	
Pro Glu Asp Lys Pro Val Lys Leu Tyr Glu Cys Ala	Val Ala Arg Tyr		

145		150		155		160									
Ser	Leu	Leu	Pro	Glu	Lys	Asn	Lys	Gly	Lys	Pro	Ile	Pro	Asn	Pro	Leu
				165	170									175	
Leu	Gly	Leu	Asp	Ser	Thr	Arg	Thr	Gly							
				180		185									

<210> 99

<211> 720

<212> DNA

<213> Artificial Sequence

<220>

<223> Synthetically generated

<400> 99

gtgaaggaag	taatgaagat	cagtctggag	atggactgca	ctgttaacgg	cgacaaattt	60
gagatcgaag	gggaggggaaa	cggaaaacct	tacgcagaa	caaattttgt	aaaacttgta	120
gtgacgaaag	gcgggcctct	gacgtttct	ttcgatgtat	tgacaccaca	attacagtat	180
gaaaacaagaat	cattcgttag	ctaccaggcc	gatataccag	actatatcaa	gctgtccttt	240
cctgagggct	ttacctggga	gcgaagcatt	cctttcaag	accaggcctc	atgtaccgtc	300
acaagcaca	tcagtgtaa	aggtgactct	ttctactata	agattcactt	cactggcgag	360
tttccctc	atggtccagt	gatgcagaga	aagacagtaa	aatgggagcc	atccactgaa	420
cgattgtatc	ttcgcgacgg	tgtgctgacg	ggacatgacg	acatgactct	gcggggttcaa	480
ggtggccgccc	atttgagagt	tgactttaac	acttcttaca	tacccaagaa	gaacacctacg	540
cttccggatt	gcttctatta	tgttagacacc	aaacttgata	ttcggaaagt	cgacgaaaat	600
tacatcaacg	tcgagcagga	cgagtgtgct	gtagctcgct	attctctgct	gcctgagaag	660
aacaaggta	agcctatccc	taaccctctc	ctcggactcg	attctacgctg	taccggtag	720

<210> 100

<211> 239

<212> PRT

<213> Artificial Sequence

<220>

<223> Synthetically generated

<400> 100

Met	Lys	Glu	Val	Met	Lys	Ile	Ser	Leu	Glu	Met	Asp	Cys	Thr	Val	Asn
1				5				10					15		
Gly	Asp	Lys	Phe	Glu	Ile	Glu	Gly	Glu	Gly	Asn	Gly	Lys	Pro	Tyr	Ala
				20		25			30						
Gly	Thr	Asn	Phe	Val	Lys	Leu	Val	Val	Thr	Lys	Gly	Gly	Pro	Leu	Thr
					35		40		45						
Phe	Ser	Phe	Asp	Val	Leu	Thr	Pro	Gln	Leu	Gln	Tyr	Gly	Asn	Lys	Ser
					50		55		60						
Phe	Val	Ser	Tyr	Pro	Ala	Asp	Ile	Pro	Asp	Tyr	Ile	Lys	Leu	Ser	Phe
					65		70		75		80				
Pro	Glu	Gly	Phe	Thr	Trp	Glu	Arg	Ser	Ile	Pro	Phe	Gln	Asp	Gln	Ala
					85		90		95						
Ser	Cys	Thr	Val	Thr	Ser	Asp	Ile	Ser	Val	Lys	Gly	Asp	Ser	Phe	Tyr
					100		105		110						
Tyr	Lys	Ile	His	Phe	Thr	Gly	Glu	Phe	Pro	Pro	His	Gly	Pro	Val	Met
					115		120		125						
Gln	Arg	Lys	Thr	Val	Lys	Trp	Glu	Pro	Ser	Thr	Glu	Arg	Leu	Tyr	Leu
					130		135		140						
Arg	Asp	Gly	Val	Leu	Thr	Gly	His	Asp	Asp	Met	Thr	Leu	Arg	Val	Glu
					145		150		155		160				
Gly	Gly	Arg	His	Leu	Arg	Val	Asp	Phe	Asn	Thr	Ser	Tyr	Ile	Pro	Lys
					165		170		175						
Lys	Asn	Leu	Thr	Leu	Pro	Asp	Cys	Phe	Tyr	Tyr	Val	Asp	Thr	Lys	Leu
					180		185		190						
Asp	Ile	Arg	Lys	Phe	Asp	Glu	Asn	Tyr	Ile	Asn	Val	Glu	Gln	Asp	Glu
					195		200		205						
Cys	Ala	Val	Ala	Arg	Tyr	Ser	Leu	Leu	Pro	Glu	Lys	Asn	Lys	Gly	Lys

210		215		220										
Pro	Ile	Pro	Asn	Pro	Leu	Leu	Gly	Leu	Asp	Ser	Thr	Arg	Thr	Gly
225					230				235					

<210> 101
<211> 714
<212> DNA
<213> Artificial Sequence

<220>
<223> Synthetically generated

<400> 101

atgaaggggg	tgaaggaagt	aatgaagatc	agtctggaga	tggagggcgc	tgttaacggc	60
caccaccca	cgatcaaagg	ggaaggagga	ggataccctt	acgaaggagt	acagtttatg	120
tctcttgaag	tggtgaatgg	cgcgcctctg	ccgttttctt	tcgatatatt	gacaccagca	180
tttatgtatg	gaaaccgtgt	attcacccaa	tacccaaaag	agataccaga	ctatttcaag	240
cagacccccc	ctgaaggcta	tcactgggag	cgaataatga	cttttgagga	cgggggcgta	300
tgttgcata	caagcgacat	cagtgtgaaa	gttgactctt	tcttctatga	cattaagttc	360
actggcatga	actttcctcc	tcatgttcca	gtgatgcaga	gaaagacagt	aaaatgggag	420
ccatccactg	aaaacattta	tcctcgcgac	gaatttctgg	aggagatgt	caacatggct	480
ctgttgctta	aagatggccg	ctattacaga	gctgaattta	gaagttctta	caaaggcaag	540
cactcgatca	acatgccgga	tttccatttt	atagaccacc	gcatttagat	tctggcaac	600
ccagaagaca	agccggtaa	gctgtacgag	attgctacag	ctcgccatca	tgggctgaag	660
ggtaagccta	tccctaacc	tctcctcgga	ctcgattcta	cgcgtaccgg	tttag	714

<210> 102

<211> 237

<212> PRT

<213> Artificial Sequence

<220>

<223> Synthetically generated

<400> 102

Met	Lys	Gly	Val	Lys	Glu	Val	Met	Lys	Ile	Ser	Leu	Glu	Met	Glu	Gly
1				5			10		15						
Ala	Val	Asn	Gly	His	His	Phe	Thr	Ile	Lys	Gly	Glu	Gly	Gly	Tyr	
				20			25					30			
Pro	Tyr	Glu	Gly	Val	Gln	Phe	Met	Ser	Leu	Glu	Val	Val	Asn	Gly	Ala
				35			40					45			
Pro	Leu	Pro	Phe	Ser	Phe	Asp	Ile	Leu	Thr	Pro	Ala	Phe	Met	Tyr	Gly
				50			55				60				
Asn	Arg	Val	Phe	Thr	Lys	Tyr	Pro	Lys	Glu	Ile	Pro	Asp	Tyr	Phe	Lys
65					70				75				80		
Gln	Thr	Phe	Pro	Glu	Gly	Tyr	His	Trp	Glu	Arg	Ile	Met	Thr	Phe	Glu
				85				90				95			
Asp	Gly	Gly	Val	Cys	Cys	Ile	Thr	Ser	Asp	Ile	Ser	Val	Lys	Gly	Asp
				100				105				110			
Ser	Phe	Phe	Tyr	Asp	Ile	Lys	Phe	Thr	Gly	Met	Asn	Phe	Pro	Pro	His
				115			120				125				
Gly	Pro	Val	Met	Gln	Arg	Lys	Thr	Val	Lys	Trp	Glu	Pro	Ser	Thr	Glu
				130			135				140				
Asn	Ile	Tyr	Pro	Arg	Asp	Glu	Phe	Leu	Glu	Gly	Asp	Val	Asn	Met	Ala
145					150				155				160		
Leu	Leu	Leu	Lys	Asp	Gly	Gly	Tyr	Tyr	Arg	Ala	Glu	Phe	Arg	Ser	Ser
				165				170				175			
Tyr	Lys	Gly	Lys	His	Ser	Ile	Asn	Met	Pro	Asp	Phe	His	Phe	Ile	Asp
				180				185				190			
His	Arg	Ile	Glu	Ile	Leu	Gly	Asn	Pro	Glu	Asp	Lys	Pro	Val	Lys	Leu
				195			200				205				
Tyr	Glu	Ile	Ala	Thr	Ala	Arg	His	His	Gly	Leu	Lys	Gly	Lys	Pro	Ile
				210			215				220				
Pro	Asn	Pro	Leu	Leu	Gly	Leu	Asp	Ser	Thr	Arg	Thr	Gly			

225

230

235

<210> 103
<211> 717
<212> DNA
<213> Artificial Sequence

<220>
<223> Synthetically generated

<400> 103
atgaaggggg tgaaggaagt aatgaagatc agtctggaga tggagggcgc tgtaacggc 60
caccacttg agatcgaagg ggaggaaac gaaaaaccc acgcaggagt acagtttatg 120
tctttgaag tggtaatgg cgcgcctcg ccgtttctt tcgatatatt gacaccagca 180
tttatgtatg gaaaccgtgt attcacaaa tacccaaag agataccaga ctatccaag 240
cagacccccc ctgaaggcta tcactggag cgaataatga ctttgagga cggggcgta 300
tggtgcata caagcgacat cagtgaaa ggtgactctt tcttctatga cattaaggtc 360
actggcatga actttccccc tcatggtcca gtgatgcaga gaaagacagt aaaatggag 420
ccatccactg aaaacattt tcctcgac gaatttctgg agggagatgt caacatggct 480
ctgttgctt aagatggcg ccattacaca tggatctt aaactatata cagatccaag 540
cactcgatca acatggcga ttccatattt atagaccacc gcattgagat tatggagcat 600
gacgaggact acaaccatgt caagctgcgc gagattgcta cagctcgcca tcatggctg 660
aaggtaagc ctatccctaa ccctctccctc ggactcgatt ctacgcgtac cggttag 717

<210> 104
<211> 238
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetically generated

<400> 104
Met Lys Gly Val Lys Glu Val Met Lys Ile Ser Leu Glu Met Glu Gly
1 5 10 15
Ala Val Asn Gly His His Phe Glu Ile Glu Gly Glu Gly Asn Gly Lys
20 25 30
Pro Tyr Ala Gly Val Gln Phe Met Ser Leu Glu Val Val Asn Gly Ala
35 40 45
Pro Leu Pro Phe Ser Phe Asp Ile Leu Thr Pro Ala Phe Met Tyr Gly
50 55 60
Asn Arg Val Phe Thr Lys Tyr Pro Lys Glu Ile Pro Asp Tyr Phe Lys
65 70 75 80
Gln Thr Phe Pro Glu Gly Tyr His Trp Glu Arg Ile Met Thr Phe Glu
85 90 95
Asp Gly Gly Val Cys Cys Ile Thr Ser Asp Ile Ser Val Lys Gly Asp
100 105 110
Ser Phe Phe Tyr Asp Ile Lys Phe Thr Gly Met Asn Phe Pro Pro His
115 120 125
Gly Pro Val Met Gln Arg Lys Thr Val Lys Trp Glu Pro Ser Thr Glu
130 135 140
Asn Ile Tyr Pro Arg Asp Glu Phe Leu Glu Gly Asp Val Asn Met Ala
145 150 155 160
Leu Leu Leu Lys Asp Gly Gly His Tyr Thr Cys Val Phe Lys Thr Ile
165 170 175
Tyr Arg Ser Lys His Ser Ile Asn Met Pro Asp Phe His Phe Ile Asp
180 185 190
His Arg Ile Glu Ile Met Glu His Asp Glu Asp Tyr Asn His Val Lys
195 200 205
Leu Arg Glu Ile Ala Thr Ala Arg His His Gly Leu Lys Gly Lys Pro
210 215 220
Ile Pro Asn Pro Leu Leu Gly Leu Asp Ser Thr Arg Thr Gly
225 230 235

<210> 105
<211> 723
<212> DNA
<213> Artificial Sequence

<220>
<223> Synthetically generated

<400> 105

atgaaggggg	tgaaggaagt	aatgaagatc	agtctggaga	tggactgcac	tgttaacggc	60
gacaaattta	cгatcaaagg	ggaaggagga	ggataccctt	acgaaggAAC	acagacttA	120
catcttacag	agaaggaaagg	caaggctctg	ccgttttctt	tcgatatatt	gacaccacAA	180
ttacagtatg	gaaacaagtC	attcgTCAGC	tacCCAGCCG	atataccaga	ctataatCAAG	240
ctgtccttC	ctgagggCtt	tacCTGGAG	cgaAGCATTc	ctttcaaga	ccaggCCTCA	300
tgtaccgtca	caagccacat	caggatgaaa	gagGAAGAGG	agcggcattt	ctactataAG	360
attcaactca	ctggcgaggT	tcctcctaAT	ggtccAGTGA	tgcagaggAG	gatacggAGGA	420
tgggagccat	ccactgaaa	catttatCCT	cgcgacGAAT	ttctggaggG	agatattCCAC	480
aagactctga	aacttagCGG	tggCCGccAT	ttgagAGTTG	actttaACAC	ttcttACATA	540
cccaAGCAct	cгatcaacat	gcccGATTTC	cattttatAG	accACCGCAT	tgatattCgg	600
aagttcgacg	aaaattacat	caacTcGAG	caggacgAGA	ttgtacAGC	tcGCCatCAT	660
gggctgaagg	gtaaggCCTAT	ccctaACCTC	ctcCTCGAC	tcgatttAC	gcgtaccGGT	720
tag						723

<210> 106
<211> 240
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetically generated

<400> 106

Met Lys Gly Val Lys Glu Val Met Lys Ile Ser Leu Glu Met Asp Cys						
1	5	10	15			
Thr Val Asn Gly Asp Lys Phe Thr Ile Lys Gly Glu Gly Gly Tyr						
20	25	30				
Pro Tyr Glu Gly Thr Gln Thr Leu His Leu Thr Glu Lys Glu Gly Lys						
35	40	45				
Pro Leu Pro Phe Ser Phe Asp Ile Leu Thr Pro Gln Leu Gln Tyr Gly						
50	55	60				
Asn Lys Ser Phe Val Ser Tyr Pro Ala Asp Ile Pro Asp Tyr Ile Lys						
65	70	75	80			
Leu Ser Phe Pro Glu Gly Phe Thr Trp Glu Arg Ser Ile Pro Phe Gln						
85	90	95				
Asp Gln Ala Ser Cys Thr Val Thr Ser His Ile Arg Met Lys Glu Glu						
100	105	110				
Glu Glu Arg His Phe Tyr Tyr Lys Ile His Phe Thr Gly Glu Phe Pro						
115	120	125				
Pro Asn Gly Pro Val Met Gln Arg Arg Ile Arg Gly Trp Glu Pro Ser						
130	135	140				
Thr Glu Asn Ile Tyr Pro Arg Asp Glu Phe Leu Glu Gly Asp Ile His						
145	150	155	160			
Lys Thr Leu Lys Leu Ser Gly Gly Arg His Leu Arg Val Asp Phe Asn						
165	170	175				
Thr Ser Tyr Ile Pro Lys His Ser Ile Asn Met Pro Asp Phe His Phe						
180	185	190				
Ile Asp His Arg Ile Asp Ile Arg Lys Phe Asp Glu Asn Tyr Ile Asn						
195	200	205				
Val Glu Gln Asp Glu Ile Ala Thr Ala Arg His His Gly Leu Lys Gly						
210	215	220				
Lys Pro Ile Pro Asn Pro Leu Leu Gly Leu Asp Ser Thr Arg Thr Gly						
225	230	235	240			

<210> 107

<211> 720
<212> DNA
<213> Artificial Sequence

<220>
<223> Synthetically generated

<400> 107
atgaaggggg tgaaggaagt aatgaagatc agtctggaga tggactgcac tgttaacggc 60
gacaattta cgatcaaagg ggaaggagga ggataccctt acgaaggaac acagactta 120
catcttacag agaaggaaagg caagcctctg acgttttctt tcgatgtatt gacaccagca 180
tttatgtatg gaaaccgtgt attcaccaaag taccaccaaag agataccaga ctatttcaag 240
cagacccccc ctgaaggcta tcactggag gagaaggagg agccgcattt ctttgagga 300
tgttgcatca caagccacat caggatgaaa gatccatgtc tgccatgtt gatacgagga 360
attcacttc ctggcgagtt tcctccta attttacatc ggtccatgtc tgccatgtt gatacgagga 420
tggagccat ccactgaaaa catttacatc cgcgacgaat ttctggaggg acatgacgac 480
atgactctgc ggggtgaagg tggcgctat tacagatgtc aatttagaaag ttcttacaaa 540
ggcaagcact cgatcaacat gccggatttc cattttatag accaccgcat tgagattctg 600
ggcaacccag aagacaagcc ggtcaagctg tacgagattt ctacagctcg ccatcatggg 660
ctgaagggtt agcctatccc taaccctctc ctcggactcg attctacgctg taccggtag 720

<210> 108
<211> 239
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetically generated

<400> 108
Met Lys Gly Val Lys Glu Val Met Lys Ile Ser Leu Glu Met Asp Cys
1 5 10 15
Thr Val Asn Gly Asp Lys Phe Thr Ile Lys Gly Glu Gly Gly Tyr
20 25 30
Pro Tyr Glu Gly Thr Gln Thr Leu His Leu Thr Glu Lys Glu Gly Lys
35 40 45
Pro Leu Thr Phe Ser Phe Asp Val Leu Thr Pro Ala Phe Met Tyr Gly
50 55 60
Asn Arg Val Phe Thr Lys Tyr Pro Lys Glu Ile Pro Asp Tyr Phe Lys
65 70 75 80
Gln Thr Phe Pro Glu Gly Tyr His Trp Glu Arg Ile Met Thr Phe Glu
85 90 95
Asp Gly Gly Val Cys Cys Ile Thr Ser His Ile Arg Met Lys Glu Glu
100 105 110
Glu Glu Arg His Phe Tyr Tyr Lys Ile His Phe Thr Gly Glu Phe Pro
115 120 125
Pro Asn Gly Pro Val Met Gln Arg Arg Ile Arg Gly Trp Glu Pro Ser
130 135 140
Thr Glu Asn Ile Tyr Pro Arg Asp Glu Phe Leu Glu Gly His Asp Asp
145 150 155 160
Met Thr Leu Arg Val Glu Gly Gly Tyr Tyr Arg Ala Glu Phe Arg
165 170 175
Ser Ser Tyr Lys Gly Lys His Ser Ile Asn Met Pro Asp Phe His Phe
180 185 190
Ile Asp His Arg Ile Glu Ile Leu Gly Asn Pro Glu Asp Lys Pro Val
195 200 205
Lys Leu Tyr Glu Ile Ala Thr Ala Arg His His Gly Leu Lys Gly Lys
210 215 220
Pro Ile Pro Asn Pro Leu Leu Gly Leu Asp Ser Thr Arg Thr Gly
225 230 235

<210> 109
<211> 747
<212> DNA

<213> Artificial Sequence

<220>

<223> Synthetically generated

<400> 109

atgagtcat	ccaagagtgt	gatcaaggac	gaaatgttca	tcaagattca	tctggaaaggc	60
acttttaacg	gccacaatt	tacgatcaa	ggggaaaggag	gaggataccc	ttacgaagga	120
gtacagttt	tgtctcttg	agtggtaat	ggcgccctc	tgccgtttgg	ttggcatata	180
tttgtcaccag	catttatgt	tggaaaccgt	gtattcacca	aatacccaa	agagatacca	240
gactatttca	agcagaccc	tccgtgaaggc	tatcaactgg	agcgaataat	gacttttgag	300
gacgggggcg	tatgttgc	cacaaggc	atcagtgtga	aagggtactc	tttcttctat	360
gacattaagt	tcactggc	gaaacttcc	cctaattgtc	cagtgtgca	gaggaggata	420
cgaggatggg	agccatcc	tgaagtaatg	tatgttgacg	acaagagtga	cgggtgtctg	480
aaggagacatg	acgacatgac	tctgcgggtt	gaaggtggcg	gccattacac	atgtgtctt	540
aaaactattt	acagatccaa	gcactcgatc	aacatgcgg	atttccattt	tatagaccac	600
cgcattgaga	ttctggca	cccagaagac	aagccgtca	agctgtacga	gtgtgctgta	660
gctcgctatt	ctctgctgc	tgagaagaac	aagggttaagc	ctatccctaa	ccctctcc	720
ggactcgatt	ctacgcgtac	cggttag				747

<210> 110

<211> 248

<212> PRT

<213> Artificial Sequence

<220>

<223> Synthetically generated

<400> 110

Met	Ser	His	Ser	Lys	Ser	Val	Ile	Lys	Asp	Glu	Met	Phe	Ile	Lys	Ile
1				5				10		15					
His	Leu	Glu	Gly	Thr	Phe	Asn	Gly	His	Lys	Phe	Thr	Ile	Lys	Gly	Glu
				20				25		30					
Gly	Gly	Gly	Tyr	Pro	Tyr	Glu	Gly	Val	Gln	Phe	Met	Ser	Leu	Glu	Val
			35			40			45						
Val	Asn	Gly	Ala	Pro	Leu	Pro	Phe	Gly	Trp	His	Ile	Leu	Ser	Pro	Ala
	50				55				60						
Phe	Met	Tyr	Gly	Asn	Arg	Val	Phe	Thr	Lys	Tyr	Pro	Lys	Glu	Ile	Pro
	65					70			75			80			
Asp	Tyr	Phe	Lys	Gln	Thr	Phe	Pro	Glu	Gly	Tyr	His	Trp	Glu	Arg	Ile
				85				90			95				
Met	Thr	Phe	Glu	Asp	Gly	Gly	Val	Cys	Cys	Ile	Thr	Ser	Asp	Ile	Ser
				100				105			110				
Val	Lys	Gly	Asp	Ser	Phe	Phe	Tyr	Asp	Ile	Lys	Phe	Thr	Gly	Met	Asn
				115				120			125				
Phe	Pro	Pro	Asn	Gly	Pro	Val	Met	Gln	Arg	Arg	Ile	Arg	Gly	Trp	Glu
					130		135			140					
Pro	Ser	Thr	Glu	Val	Met	Tyr	Val	Asp	Asp	Lys	Ser	Asp	Gly	Val	Leu
					145		150			155			160		
Lys	Gly	His	Asp	Asp	Met	Thr	Leu	Arg	Val	Glu	Gly	Gly	His	Tyr	
						165		170			175				
Thr	Cys	Val	Phe	Lys	Thr	Ile	Tyr	Arg	Ser	Lys	His	Ser	Ile	Asn	Met
						180		185			190				
Pro	Asp	Phe	His	Phe	Ile	Asp	His	Arg	Ile	Glu	Ile	Leu	Gly	Asn	Pro
					195		200			205			210		
Glu	Asp	Lys	Pro	Val	Lys	Leu	Tyr	Glu	Cys	Ala	Val	Ala	Arg	Tyr	Ser
					210		215			220					
Leu	Leu	Pro	Glu	Lys	Asn	Lys	Gly	Lys	Pro	Ile	Pro	Asn	Pro	Leu	Leu
					225		230			235			240		
Gly	Leu	Asp	Ser	Thr	Arg	Thr	Gly								
					245										

<210> 111

<211> 561

<212> DNA
<213> Artificial Sequence

<220>
<223> Synthetically generated

<400> 111

ttgacaccac aattacagta tggaaacaag tcattcgta gctaccgc cgatatacca	60
gactatatac agctgtccct tcctgaggc tttacctggc agcgaataat gacttttag	120
gacggggcg tatgttcat cacaagcgac atcagtgtga aagggtgactc ttctactat	180
aagattcaact tcactggcga gtttcctcct aatggtccag tgatgcagag gaggatacga	240
ggatggagc catccactga aaacatttat cctcgacg aatttctgg aggacatgac	300
gacatgactc tgcgggttg aggtggcgcc cattacacat gtgtcttaa aactattac	360
agatccaaga agaaggtcga gaatatgcct gactaccatt ttatagacca ccgcattgag	420
attatggagc atgacgagga ctacaaccat gtcaagctgc gcgagtggtc tgtagctgc	480
tattctctgc tgcctgagaa gaacaagggt aagcctatcc ctaaccctct cctcgactc	540
gattctacgc gtaccggta g	561

<210> 112

<211> 186

<212> PRT

<213> Artificial Sequence

<220>

<223> Synthetically generated

<400> 112

Met Thr Pro Gln Leu Gln Tyr Gly Asn Lys Ser Phe Val Ser Tyr Pro	
1 5 10 15	
Ala Asp Ile Pro Asp Tyr Ile Lys Leu Ser Phe Pro Glu Gly Phe Thr	
20 25 30	
Trp Glu Arg Ile Met Thr Phe Glu Asp Gly Gly Val Cys Cys Ile Thr	
35 40 45	
Ser Asp Ile Ser Val Lys Gly Asp Ser Phe Tyr Tyr Lys Ile His Phe	
50 55 60	
Thr Gly Glu Phe Pro Pro Asn Gly Pro Val Met Gln Arg Arg Ile Arg	
65 70 75 80	
Gly Trp Glu Pro Ser Thr Glu Asn Ile Tyr Pro Arg Asp Glu Phe Leu	
85 90 95	
Glu Gly His Asp Asp Met Thr Leu Arg Val Glu Gly Gly His Tyr	
100 105 110	
Thr Cys Val Phe Lys Thr Ile Tyr Arg Ser Lys Lys Lys Val Glu Asn	
115 120 125	
Met Pro Asp Tyr His Phe Ile Asp His Arg Ile Glu Ile Met Glu His	
130 135 140	
Asp Glu Asp Tyr Asn His Val Lys Leu Arg Glu Cys Ala Val Ala Arg	
145 150 155 160	
Tyr Ser Leu Leu Pro Glu Lys Asn Lys Gly Lys Pro Ile Pro Asn Pro	
165 170 175	
Leu Leu Gly Leu Asp Ser Thr Arg Thr Gly	
180 185	

<210> 113

<211> 720

<212> DNA

<213> Artificial Sequence

<220>

<223> Synthetically generated

<400> 113

atgaaggggg tgaaggaagt aatgaagatc agtctggaga tggactgcac tgttaacggc	60
gacaaattta cgatcaaagg ggaaggagga ggataccctt acgaaggagt acagttatg	120
tctcttgaag tggtaatgg cgccctctg ccgtttgtt ggcatatatt gtcaccagca	180

tttatgtatg	gaaaccgtgt	attcaccaaa	tacccaaaag	agataccaga	ctatttcaag	240
cagacccttc	ctgaaggcta	tcactggag	cgaataatga	cttttgagga	cgggggcgta	300
tgttgcata	caagcgacat	cagtagaaa	agtaacaact	gttcttcta	tgacattaaag	360
ttcactggca	tgaacttcc	tcctaatggt	ccagtgtatgc	agaggagat	acgaggatgg	420
gagccatcca	ctgaacgatt	gtatcttcgc	gacgggtgtgc	tgacgggaga	tgtcaacatg	480
gctctgtgc	ttaaagatgg	ccgccatgg	agagttgact	ttaacacttc	ttacataccc	540
aagaagaagg	tcgagaatat	gcctgactac	cattttatag	accacccgcat	tgagattctg	600
ggcaacccag	aagacaagcc	ggtcaagctg	tacgagattg	ctacagctcg	ccatcatggg	660
ctgaaggta	agcctatccc	taaccctctc	ctcggactcg	attctacgctg	taccggtag	720

<210> 114

<211> 239

<212> PRT

<213> Artificial Sequence

<220>

<223> Synthetically generated

<400> 114

Met	Lys	Gly	Val	Lys	Glu	Val	Met	Lys	Ile	Ser	Leu	Glu	Met	Asp	Cys
1				5			10					15			
Thr	Val	Asn	Gly	Asp	Lys	Phe	Thr	Ile	Lys	Gly	Glu	Gly	Gly	Tyr	
	20				25							30			
Pro	Tyr	Glu	Gly	Val	Gln	Phe	Met	Ser	Leu	Glu	Val	Val	Asn	Gly	Ala
	35				40						45				
Pro	Leu	Pro	Phe	Gly	Trp	His	Ile	Leu	Ser	Pro	Ala	Phe	Met	Tyr	Gly
	50				55						60				
Asn	Arg	Val	Phe	Thr	Lys	Tyr	Pro	Lys	Glu	Ile	Pro	Asp	Tyr	Phe	Lys
	65				70					75			80		
Gln	Thr	Phe	Pro	Glu	Gly	Tyr	His	Trp	Glu	Arg	Ile	Met	Thr	Phe	Glu
	85				90					95					
Asp	Gly	Gly	Val	Cys	Cys	Ile	Thr	Ser	Asp	Ile	Ser	Met	Lys	Ser	Asn
	100				105						110				
Asn	Cys	Phe	Phe	Tyr	Asp	Ile	Lys	Phe	Thr	Gly	Met	Asn	Phe	Pro	Pro
	115				120						125				
Asn	Gly	Pro	Val	Met	Gln	Arg	Arg	Ile	Arg	Gly	Trp	Glu	Pro	Ser	Thr
	130				135						140				
Glu	Arg	Leu	Tyr	Leu	Arg	Asp	Gly	Val	Leu	Thr	Gly	Asp	Val	Asn	Met
	145				150					155				160	
Ala	Leu	Leu	Leu	Lys	Asp	Gly	Arg	His	Leu	Arg	Val	Asp	Phe	Asn	Thr
	165				170						175				
Ser	Tyr	Ile	Pro	Lys	Lys	Lys	Val	Glu	Asn	Met	Pro	Asp	Tyr	His	Phe
	180				185						190				
Ile	Asp	His	Arg	Ile	Glu	Ile	Leu	Gly	Asn	Pro	Glu	Asp	Lys	Pro	Val
	195				200						205				
Lys	Leu	Tyr	Glu	Ile	Ala	Thr	Ala	Arg	His	His	Gly	Leu	Lys	Gly	Lys
	210				215						220				
Pro	Ile	Pro	Asn	Pro	Leu	Leu	Gly	Leu	Asp	Ser	Thr	Arg	Thr	Gly	
	225				230						235				

<210> 115

<211> 723

<212> DNA

<213> Artificial Sequence

<220>

<223> Synthetically generated

<400> 115

atgaagggggg	tgaaggaagt	aatgaagatc	agtctggaga	tggactgcac	tgttaacggc	60
gacaaattta	cgatcaaagg	ggaaggagga	ggataccctt	acgaaggagt	acagtttatg	120
tctcttgaag	tggtaatgg	cgcgcctcg	acgttttctt	tcgatgtatt	gacaccagca	180
tttcgtatg	gaaaccgtac	attcaccaaa	tacccaaaag	agataccaga	ctatttcaag	240
cagacccttc	ctgaaggcta	tcactggag	cgaataatga	cttttgagga	cgggggcgta	300

tgttgcac	caagcgacat	cagtgtaaa	ggtgactctt	tcttctatga	cattaagttc	360
actggcatga	actttccccc	taatggcca	gtgatgcaga	ggaggatacg	aggatgggag	420
ccatccactg	aacgattgt	tcttcgcac	ggtgtctga	cgggagatgt	caacatggct	480
ctgttgctta	aagatggcg	ccattacaca	tgtgtctta	aaactattt	cagatccaag	540
aagaaggctg	agaatatgcc	tgactaccat	tttatagacc	accgcattga	gattatggag	600
catgacgagg	actacaacca	tgtcaagctg	cgcgagattg	ctacagctcg	ccatcatggg	660
ctgaagggtt	agccatatccc	taaccctctc	ctcggactcg	attctacgcg	taccggtagc	720
tcg						723

<210> 116

<211> 241

<212> PRT

<213> Artificial Sequence

<220>

<223> Synthetically generated

<400> 116

Met	Lys	Gly	Val	Lys	Glu	Val	Met	Lys	Ile	Ser	Leu	Glu	Met	Asp	Cys	
1				5			10					15				
Thr	Val	Asn	Gly	Asp	Lys	Phe	Thr	Ile	Lys	Gly	Glu	Gly	Gly	Tyr		
	20				25							30				
Pro	Tyr	Glu	Gly	Val	Gln	Phe	Met	Ser	Leu	Glu	Val	Val	Asn	Gly	Ala	
	35					40						45				
Pro	Leu	Thr	Phe	Ser	Phe	Asp	Val	Leu	Thr	Pro	Ala	Phe	Gln	Tyr	Gly	
	50					55						60				
Asn	Arg	Thr	Phe	Thr	Lys	Tyr	Pro	Lys	Glu	Ile	Pro	Asp	Tyr	Phe	Lys	
65					70				75				80			
Gln	Thr	Phe	Pro	Glu	Gly	Tyr	His	Trp	Glu	Arg	Ile	Met	Thr	Phe	Glu	
						85			90				95			
Asp	Gly	Gly	Val	Cys	Cys	Ile	Thr	Ser	Asp	Ile	Ser	Val	Lys	Gly	Asp	
	100					105						110				
Ser	Phe	Phe	Tyr	Asp	Ile	Lys	Phe	Thr	Gly	Met	Asn	Phe	Pro	Pro	Asn	
	115					120						125				
Gly	Pro	Val	Met	Gln	Arg	Arg	Ile	Arg	Gly	Trp	Glu	Pro	Ser	Thr	Glu	
	130					135						140				
Arg	Leu	Tyr	Leu	Arg	Asp	Gly	Val	Leu	Thr	Gly	Asp	Val	Asn	Met	Ala	
145						150					155				160	
Leu	Leu	Leu	Lys	Asp	Gly	Gly	His	Tyr	Thr	Cys	Val	Phe	Lys	Thr	Ile	
							165		170				175			
Tyr	Arg	Ser	Lys	Lys	Val	Glu	Asn	Met	Pro	Asp	Tyr	His	Phe	Ile		
	180					185					190					
Asp	His	Arg	Ile	Glu	Ile	Met	Glu	His	Asp	Glu	Asp	Tyr	Asn	His	Val	
	195					200					205					
Lys	Leu	Arg	Glu	Ile	Ala	Thr	Ala	Arg	His	His	Gly	Leu	Lys	Gly	Lys	
	210					215					220					
Pro	Ile	Pro	Asn	Pro	Leu	Leu	Gly	Leu	Asp	Ser	Thr	Arg	Thr	Gly	Ser	
225						230					235				240	
Ser																

<210> 117

<211> 717

<212> DNA

<213> Artificial Sequence

<220>

<223> Synthetically generated

<400> 117

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gacaatcta	cgatcaaagg	ggaaggagga	ggataccctt	acgaaggagt	acagtttatg	120
tctcttgaag	ttgtgaatgg	cgcgcctctg	acgttttctt	tcgatgtatt	gacaccagca	180
tttatgtatg	gaaaccgtgt	attcaccaaa	tacccaaaag	agataccaga	ctatttcaag	240

cagaccttc	ctgaaggcta	tcactggag	cgaataatga	ctttgagga	cggggcgta	300
tgttgcata	caagcgacat	cagtgtgaaa	ggtgactctt	tctactataa	gattcacttc	360
actggcgagt	ttcccttcata	tggtccagtg	atgcagagaa	agacagtaaa	atgggagcca	420
tccactgaac	gattgtatct	tcgcgacggt	gtgctgacgg	gacatgacga	catgactctg	480
cgggttgaag	gtggcgccca	ttacacatgt	gtctttaaaa	ctatttacag	atccaagaag	540
aaggtcgaga	atatgcctga	ctaccattt	atagaccacc	gcattgagat	tatggagcat	600
gacgaggact	acaaccatgt	caagctgcgc	gagattgcta	cagctcgcca	tcatggctg	660
aagggttaagc	ctatccctaa	cccttcctc	ggactcgatt	ctacgcgtac	cggttag	717

<210> 118

<211> 238

<212> PRT

<213> Artificial Sequence

<220>

<223> Synthetically generated

<400> 118

Met	Lys	Gly	Val	Lys	Glu	Val	Met	Lys	Ile	Ser	Leu	Glu	Met	Asp	Cys
1				5			10					15			
Thr	Val	Asn	Gly	Asp	Lys	Phe	Thr	Ile	Lys	Gly	Glu	Gly	Gly	Tyr	
							20		25			30			
Pro	Tyr	Glu	Gly	Val	Gln	Phe	Met	Ser	Leu	Glu	Val	Val	Asn	Gly	Ala
					35		40			45					
Pro	Leu	Thr	Phe	Ser	Phe	Asp	Val	Leu	Thr	Pro	Ala	Phe	Met	Tyr	Gly
					50		55			60					
Asn	Arg	Val	Phe	Thr	Lys	Tyr	Pro	Lys	Glu	Ile	Pro	Asp	Tyr	Phe	Lys
					65		70		75			80			
Gln	Thr	Phe	Pro	Glu	Gly	Tyr	His	Trp	Glu	Arg	Ile	Met	Thr	Phe	Glu
					85		90			95					
Asp	Gly	Gly	Val	Cys	Cys	Ile	Thr	Ser	Asp	Ile	Ser	Val	Lys	Gly	Asp
					100		105			110					
Ser	Phe	Tyr	Tyr	Lys	Ile	His	Phe	Thr	Gly	Glu	Phe	Pro	Pro	His	Gly
					115		120			125					
Pro	Val	Met	Gln	Arg	Lys	Thr	Val	Lys	Trp	Glu	Pro	Ser	Thr	Glu	Arg
					130		135			140					
Leu	Tyr	Leu	Arg	Asp	Gly	Val	Leu	Thr	Gly	His	Asp	Asp	Met	Thr	Leu
					145		150			155			160		
Arg	Val	Glu	Gly	Gly	His	Tyr	Thr	Cys	Val	Phe	Lys	Thr	Ile	Tyr	
					165		170			175					
Arg	Ser	Lys	Lys	Lys	Val	Glu	Asn	Met	Pro	Asp	Tyr	His	Phe	Ile	Asp
					180		185			190					
His	Arg	Ile	Glu	Ile	Met	Glu	His	Asp	Glu	Asp	Tyr	Asn	His	Val	Lys
					195		200			205					
Leu	Arg	Glu	Ile	Ala	Thr	Ala	Arg	His	His	Gly	Leu	Lys	Gly	Lys	Pro
					210		215			220					
Ile	Pro	Asn	Pro	Leu	Leu	Gly	Leu	Asp	Ser	Thr	Arg	Thr	Gly		
					225		230			235					

<210> 119

<211> 723

<212> DNA

<213> Artificial Sequence

<220>

<223> Synthetically generated

<400> 119

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gacaaattta	cgatcaaagg	ggaaggagga	ggataccctt	acgaaggagt	acagtttatg	120
tctcttgaag	tggtgaatgg	cgcgcctctg	ccgttttctt	tcgatatatatt	gacaccagca	180
tttatgtatg	gaaaccgtgt	attcacaaaa	tacccaaaag	agataccaga	ctatttcaag	240
cagacccccc	ctgaaggcta	tcactgggag	cgaataatga	ctttgagga	cggggcgta	300
tgttgcata	caagcgacat	cagatgaaa	agtaacaact	gtttcttcta	tgacattaag	360

ttcactggca	tgaactttcc	tcctaatgggt	ccagtatgc	agaggaggat	acgaggatgg	420
gagccatcca	ctgaaaacat	ttatcctcgc	gacgaatttc	tggagggaga	tgtcaacatg	480
gctctgtgc	ttaaagatgg	cggctattac	agagctgaat	ttagaagttc	ttacaaaggc	540
aagaagaagg	tcgagaatat	gcctgactac	cattttatag	accaccgcat	tgagattatg	600
gagcatgacg	aggactacaa	ccatgtcaag	ctgcgcgaga	ttgctacagc	tcgcccata	660
gggctgaagg	gtaagcctat	ccctaaccct	ctcctcgac	tcgattctac	gcgtaccggt	720
tag						723

<210> 120

<211> 240

<212> PRT

<213> Artificial Sequence

<220>

<223> Synthetically generated

<400> 120

Met Lys Gly Val Lys Glu Val Met Lys Ile Ser Leu Glu Met Asp Cys						
1	5	10	15			
Thr Val Asn Gly Asp Lys Phe Thr Ile Lys Gly Glu Gly Gly Tyr						
20	25	30				
Pro Tyr Glu Gly Val Gln Phe Met Ser Leu Glu Val Val Asn Gly Ala						
35	40	45				
Pro Leu Pro Phe Ser Phe Asp Ile Leu Thr Pro Ala Phe Met Tyr Gly						
50	55	60				
Asn Arg Val Phe Thr Lys Tyr Pro Lys Glu Ile Pro Asp Tyr Phe Lys						
65	70	75	80			
Gln Thr Phe Pro Glu Gly Tyr His Trp Glu Arg Ile Met Thr Phe Glu						
85	90	95				
Asp Gly Gly Val Cys Cys Ile Thr Ser Asp Ile Ser Met Lys Ser Asn						
100	105	110				
Asn Cys Phe Phe Tyr Asp Ile Lys Phe Thr Gly Met Asn Phe Pro Pro						
115	120	125				
Asn Gly Pro Val Met Gln Arg Arg Ile Arg Gly Trp Glu Pro Ser Thr						
130	135	140				
Glu Asn Ile Tyr Pro Arg Asp Glu Phe Leu Glu Gly Asp Val Asn Met						
145	150	155	160			
Ala Leu Leu Leu Lys Asp Gly Gly Tyr Tyr Arg Ala Glu Phe Arg Ser						
165	170	175				
Ser Tyr Lys Gly Lys Lys Val Glu Asn Met Pro Asp Tyr His Phe						
180	185	190				
Ile Asp His Arg Ile Glu Ile Met Glu His Asp Glu Asp Tyr Asn His						
195	200	205				
Val Lys Leu Arg Glu Ile Ala Thr Ala Arg His His Gly Leu Lys Gly						
210	215	220				
Lys Pro Ile Pro Asn Pro Leu Leu Gly Leu Asp Ser Thr Arg Thr Gly						
225	230	235	240			

<210> 121

<211> 639

<212> DNA

<213> Artificial Sequence

<220>

<223> Synthetically generated

<400> 121

atgatgaccg atctgcacatc ggactgcact gttaacggcg acaaatttac gatcaaagg	60
gaaggaggag gataccctta cgaaggaaca aattttgtaa aacttgttagt gacgaaaggc	120
gggcctctgc cgcccccttgc gcatatatttgc tcaccacat ttatgttatgg aaaccgtgt	180
ttcacccaaat accccagccgcata tataccacat tataatcaacg tggccctttcc tgagggttt	240
acctggggagc gaagcattcc ttttcaagac caggccatcat gtaccgtcac aagcgacatc	300
agtgtgaaag gtgactcttt cttctatgac attaagtta ctggcatgaa ctttccttcct	360
aatggtccag tgatgcagag gaggatacga ggatgggagc catccactga acgattgtat	420

cttcgcgacg	gtgtgctgac	gggacatgac	gacatgactc	tgccgggtga	aggtggcgcc	480
cattacacat	gtgtctttaa	aactattac	agatccaagc	actcgatcaa	catgccggat	540
ttccatttta	tagaccacccg	cattgatatt	cgaaagttcg	acgaaaatta	catcaacgtc	600
agcaggacga	gattgctaca	gctgccatc	atgggctga			639

<210> 122
<211> 212
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetically generated

<400> 122

Met	Met	Thr	Asp	Leu	His	Leu	Asp	Cys	Thr	Val	Asn	Gly	Asp	Lys	Phe
1															
														15	
Thr	Ile	Lys	Gly	Glu	Gly	Gly	Gly	Tyr	Pro	Tyr	Glu	Gly	Thr	Asn	Phe
														30	
val	Lys	Leu	Val	Val	Thr	Lys	Gly	Gly	Pro	Leu	Pro	Phe	Gly	Trp	His
														45	
Ile	Leu	Ser	Pro	Ala	Phe	Met	Tyr	Gly	Asn	Arg	Val	Phe	Thr	Lys	Tyr
														60	
Pro	Ala	Asp	Ile	Pro	Asp	Tyr	Ile	Lys	Leu	Ser	Phe	Pro	Glu	Gly	Phe
														80	
Thr	Trp	Glu	Arg	Ser	Ile	Pro	Phe	Gln	Asp	Gln	Ala	Ser	Cys	Thr	Val
														95	
Thr	Ser	Asp	Ile	Ser	Val	Lys	Gly	Asp	Ser	Phe	Phe	Tyr	Asp	Ile	Lys
														110	
Phe	Thr	Gly	Met	Asn	Phe	Pro	Pro	Asn	Gly	Pro	Val	Met	Gln	Arg	Arg
														125	
Ile	Arg	Gly	Trp	Glu	Pro	Ser	Thr	Glu	Arg	Leu	Tyr	Leu	Arg	Asp	Gly
														140	
Val	Leu	Thr	Gly	His	Asp	Asp	Met	Thr	Leu	Arg	Val	Glu	Gly	Gly	
														160	
His	Tyr	Thr	Cys	Val	Phe	Lys	Thr	Ile	Tyr	Arg	Ser	Lys	His	Ser	Ile
														175	
Asn	Met	Pro	Asp	Phe	His	Phe	Ile	Asp	His	Arg	Ile	Asp	Ile	Arg	Lys
														190	
Phe	Asp	Glu	Asn	Tyr	Ile	Asn	Val	Ser	Arg	Thr	Arg	Leu	Leu	Gln	Leu
														205	
Ala	Ile	Met	Gly												
															210

<210> 123
<211> 714
<212> DNA
<213> Artificial Sequence

<220>
<223> Synthetically generated

<400> 123

atgaagggggg	tgaaggaagt	aatgaagatc	agtctggaga	tggagggcgc	tgttaacggc	60
caccacttta	cgatcaaagg	ggaaggagga	ggataccctt	acgaaggagt	acagtttatg	120
tctcttgaag	tggtaatgg	cgcgcctctg	acgttttctt	tcgatgtatt	gacaccagca	180
tttatgtatg	gaaaccgtgt	attcacaaaa	tacccaaaag	agataccaga	ctatttcaag	240
cagacccttc	ctgaaggccta	tcactggag	cgaaaaatga	cttatgagga	cgggggcata	300
agtaacgtcc	gaagcgacat	cagtatgaaa	agtaacaact	gtttctacta	taagattcac	360
ttcactggcg	agtttcctcc	tcatggtcca	gtgatgcaga	gaaagacagt	aaaatgggag	420
ccatccactg	aaaacattta	tcctcgcgac	gaatttctgg	agggagatgt	caacatggct	480
ctgttgctta	aaagatggcgg	ccattacaca	tgtgtctta	aaactattta	cagatccaag	540
cactcgatca	acatgccgga	tttcattttt	atagaccacc	gcattgagat	tctgggcaac	600
ccagaagaca	agccggtaaa	gctgtacgag	attgtacag	ctcgccatca	tgggctgaag	660
ggtaaaggccta	tcccttaaccc	tctccctcgga	ctcgattcta	cgcgtaccgg	tttag	714

<210> 124
<211> 237
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetically generated

<400> 124
Met Lys Gly Val Lys Glu Val Met Lys Ile Ser Leu Glu Met Glu Gly
1 5 10 15
Ala Val Asn Gly His His Phe Thr Ile Lys Gly Glu Gly Gly Tyr
20 25 30
Pro Tyr Glu Gly Val Gln Phe Met Ser Leu Glu Val Val Asn Gly Ala
35 40 45
Pro Leu Thr Phe Ser Phe Asp Val Leu Thr Pro Ala Phe Met Tyr Gly
50 55 60
Asn Arg Val Phe Thr Lys Tyr Pro Lys Glu Ile Pro Asp Tyr Phe Lys
65 70 75 80
Gln Thr Phe Pro Glu Gly Tyr His Trp Glu Arg Lys Met Thr Tyr Glu
85 90 95
Asp Gly Gly Ile Ser Asn Val Arg Ser Asp Ile Ser Met Lys Ser Asn
100 105 110
Asn Cys Phe Tyr Tyr Lys Ile His Phe Thr Gly Glu Phe Pro Pro His
115 120 125
Gly Pro Val Met Gln Arg Lys Thr Val Lys Trp Glu Pro Ser Thr Glu
130 135 140
Asn Ile Tyr Pro Arg Asp Glu Phe Leu Glu Asp Val Asn Met Ala
145 150 155 160
Leu Leu Leu Lys Asp Gly Gly His Tyr Thr Cys Val Phe Lys Thr Ile
165 170 175
Tyr Arg Ser Lys His Ser Ile Asn Met Pro Asp Phe His Phe Ile Asp
180 185 190
His Arg Ile Glu Ile Leu Gly Asn Pro Glu Asp Lys Pro Val Lys Leu
195 200 205
Tyr Glu Ile Ala Thr Ala Arg His His Gly Leu Lys Gly Lys Pro Ile
210 215 220
Pro Asn Pro Leu Leu Gly Leu Asp Ser Thr Arg Thr Gly
225 230 235

<210> 125
<211> 714
<212> DNA
<213> Artificial Sequence

<220>
<223> Synthetically generated

<400> 125
atgaaggggg tgaaggaagt aatgaagatc agtctggaga tggactgcac tgtaacggc 60
gacaaattta cgatcaaagg ggaaggagga ggataccctt acgaaggagt acagtttatg 120
tctcttgaag tggtaatgg cgcgcctcg ccgtttgtt ggcataatatt gtcaccagca 180
tttatgtatg gaaaccgtgt attcacaaaa tacccaaaag agataccaga ctatccaag 240
cagacctttc ctgaaggcta tcactggag cgaataatga ctttgagga cggggcgta 300
tggcatca caagcgacat cagtgtaaa ggtgactctt tcttctatga cattaagttc 360
actggcatga actttcctcc tcatggtcca gtgatgcaga gaaagacagt aaaatggag 420
ccatccactg aaaacattta tcctcgac gaatttctgg agggagatgt caacatggct 480
ctgttgctta aagatggcg 540
cactcgatca acatgccgaa tttccatcc atagaccacc gcatttagat tctggcaac 600
ccagaagaca agccggtaa gctgtacgag attgctacag ctcgccatca tgggctgaag 660
ggtaagccta tccctaacc tctcctcgga ctcgattcta cgcttaccgg ttag 714

<210> 126

<211> 237
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetically generated

<400> 126
Met Lys Gly Val Lys Glu Val Met Lys Ile Ser Leu Glu Met Asp Cys
1 5 10 15
Thr Val Asn Gly Asp Lys Phe Thr Ile Lys Gly Glu Gly Gly Tyr
20 25 30
Pro Tyr Glu Gly Val Gln Phe Met Ser Leu Glu Val Val Asn Gly Ala
35 40 45
Pro Leu Pro Phe Gly Trp His Ile Leu Ser Pro Ala Phe Met Tyr Gly
50 55 60
Asn Arg Val Phe Thr Lys Tyr Pro Lys Glu Ile Pro Asp Tyr Phe Lys
65 70 75 80
Gln Thr Phe Pro Glu Gly Tyr His Trp Glu Arg Ile Met Thr Phe Glu
85 90 95
Asp Gly Gly Val Cys Cys Ile Thr Ser Asp Ile Ser Val Lys Gly Asp
100 105 110
Ser Phe Phe Tyr Asp Ile Lys Phe Thr Gly Met Asn Phe Pro Pro His
115 120 125
Gly Pro Val Met Gln Arg Lys Thr Val Lys Trp Glu Pro Ser Thr Glu
130 135 140
Asn Ile Tyr Pro Arg Asp Glu Phe Leu Glu Gly Asp Val Asn Met Ala
145 150 155 160
Leu Leu Leu Lys Asp Gly Gly His Tyr Thr Cys Val Phe Lys Thr Ile
165 170 175
Tyr Arg Ser Lys His Ser Ile Asn Met Pro Asp Phe His Phe Ile Asp
180 185 190
His Arg Ile Glu Ile Leu Gly Asn Pro Glu Asp Lys Pro Val Lys Leu
195 200 205
Tyr Glu Ile Ala Thr Ala Arg His His Gly Leu Lys Gly Lys Pro Ile
210 215 220
Pro Asn Pro Leu Leu Gly Leu Asp Ser Thr Arg Thr Gly
225 230 235

<210> 127
<211> 741
<212> DNA
<213> Artificial Sequence

<220>
<223> Synthetically generated

<400> 127
atgagtcatt ccaagagtgt gatcaaggac gaaatgttca tcaagattca tctggaggc 60
acttttaacg gcccacaatt tacgatcaaa ggggaaggag gaggataccc ttacgaagga 120
gtacagttt tgcgtcttga agtgtgaat ggccgcgcctc tgacgttttc ttgcgtatgt 180
ttgacaccag catttcagta tggaaaaccgt acattcacca aataccccaaa agagatacca 240
gactatttca agcagacctt tcctgaaggc tatcactggg agcgaataat gacttttgag 300
gacggggggcg tatgttgcat cacaaggcgc atcagtatga aaagtaacaa ctgtttcttc 360
tatgacatta agttcactgg catgaacttt cctcctcatg gtccagtgat gcagagaaaag 420
acagaaaaat ggggagccatc cactgaagta atgtatgtt acgacaagag tgacgggttg 480
ctgaaggagg atgtcaacat ggctctgtt cttaaagatg gccgccattt gagagttgac 540
tttaacactt cttacatacc caagcactcg atcaacatgc cgatgttcca ttttatagac 600
caccgcattt agattatggc gcatgacgag gactacaacc atgtcaagct gcgcgagatt 660
gctacagctc gccatcatgg gctgaagggt aagcctatcc ctaaccctct cctcggactc 720
gattctacgc gtaccggta g 741

<210> 128
<211> 246

<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetically generated

<400> 128
Met Ser His Ser Lys Ser Val Ile Lys Asp Glu Met Phe Ile Lys Ile
1 5 10 15
His Leu Glu Gly Thr Phe Asn Gly His Lys Phe Thr Ile Lys Gly Glu
20 25 30
Gly Gly Gly Tyr Pro Tyr Glu Gly Val Gln Phe Met Ser Leu Glu Val
35 40 45
Val Asn Gly Ala Pro Leu Thr Phe Ser Phe Asp Val Leu Thr Pro Ala
50 55 60
Phe Gln Tyr Gly Asn Arg Thr Phe Thr Lys Tyr Pro Lys Glu Ile Pro
65 70 75 80
Asp Tyr Phe Lys Gln Thr Phe Pro Glu Gly Tyr His Trp Glu Arg Ile
85 90 95
Met Thr Phe Glu Asp Gly Gly Val Cys Cys Ile Thr Ser Asp Ile Ser
100 105 110
Met Lys Ser Asn Asn Cys Phe Phe Tyr Asp Ile Lys Phe Thr Gly Met
115 120 125
Asn Phe Pro Pro His Gly Pro Val Met Gln Arg Lys Thr Val Lys Trp
130 135 140
Glu Pro Ser Thr Glu Val Met Tyr Val Asp Asp Lys Ser Asp Gly Val
145 150 155 160
Leu Lys Gly Asp Val Asn Met Ala Leu Leu Lys Asp Gly Arg His
165 170 175
Leu Arg Val Asp Phe Asn Thr Ser Tyr Ile Pro Lys His Ser Ile Asn
180 185 190
Met Pro Asp Phe His Phe Ile Asp His Arg Ile Glu Ile Met Glu His
195 200 205
Asp Glu Asp Tyr Asn His Val Lys Leu Arg Glu Ile Ala Thr Ala Arg
210 215 220
His His Gly Leu Lys Gly Lys Pro Ile Pro Asn Pro Leu Leu Gly Leu
225 230 235 240
Asp Ser Thr Arg Thr Gly
245

<210> 129
<211> 723
<212> DNA
<213> Artificial Sequence

<220>
<223> Synthetically generated

<400> 129
atgaaggggg tgaaggaagt aatgaagatc agtctggaga tggagggcgc tgttaacggc 60
caccacttta cgatcaaagg ggaaggagga ggataccctt acgaaggAAC acagacttta 120
catcttacag agaaggaagg caaggctctg ccgtttgggtt ggcataatatt gtcaccacaa 180
ttacagtatg gaaacaagtC attcgTCAGC taccCAAAG agatACCAGA ctattcaag 240
cagaccttcc ctgaaggcta tcactgggag cggaaaaatga cttatgagga cggggcata 300
agtaacgtcc gaagccacat caggatgaaa gaggaagagg agcggcattt ctactataag 360
attcacttca ctggcgaggTT tcctcCTCAT ggtccagtGA tgCAGAGAAA gacgataaaa 420
tgggagccat ccactgaacg attgtatctt cgcgacggtg tgctgacggg acatgacgac 480
atgactctgc gggTTGAAGG tggccGCCAT ttgagagttG acTTAACAC ttcttacata 540
cccaagaaga aggtcgagaa tatgcCTGAC taccATTAA tagaccACCG cattgagatt 600
ctgggcaacc cagaagacaa gcccggTCAAG ctgtacgaga ttgctacAGC tcggccatcat 660
gggCTGAAGG gtaaggcCTAT ccctaaccct ctcctcggac tcgattctac gcgtaccggT 720
tag 723

<210> 130

<211> 240
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetically generated

<400> 130
Met Lys Gly Val Lys Glu Val Met Lys Ile Ser Leu Glu Met Glu Gly
1 5 10 15
Ala Val Asn Gly His His Phe Thr Ile Lys Gly Glu Gly Gly Tyr
20 25 30
Pro Tyr Glu Gly Thr Gln Thr Leu His Leu Thr Glu Lys Glu Gly Lys
35 40 45
Pro Leu Pro Phe Gly Trp His Ile Leu Ser Pro Gln Leu Gln Tyr Gly
50 55 60
Asn Lys Ser Phe Val Ser Tyr Pro Lys Glu Ile Pro Asp Tyr Phe Lys
65 70 75 80
Gln Thr Phe Pro Glu Gly Tyr His Trp Glu Arg Lys Met Thr Tyr Glu
85 90 95
Asp Gly Gly Ile Ser Asn Val Arg Ser His Ile Arg Met Lys Glu Glu
100 105 110
Glu Glu Arg His Phe Tyr Tyr Lys Ile His Phe Thr Gly Glu Phe Pro
115 120 125
Pro His Gly Pro Val Met Gln Arg Lys Thr Val Lys Trp Glu Pro Ser
130 135 140
Thr Glu Arg Leu Tyr Leu Arg Asp Gly Val Leu Thr Gly His Asp Asp
145 150 155 160
Met Thr Leu Arg Val Glu Gly Gly Arg His Leu Arg Val Asp Phe Asn
165 170 175
Thr Ser Tyr Ile Pro Lys Lys Val Glu Asn Met Pro Asp Tyr His
180 185 190
Phe Ile Asp His Arg Ile Glu Ile Leu Gly Asn Pro Glu Asp Lys Pro
195 200 205
Val Lys Leu Tyr Glu Ile Ala Thr Ala Arg His His Gly Leu Lys Gly
210 215 220
Lys Pro Ile Pro Asn Pro Leu Leu Gly Leu Asp Ser Thr Arg Thr Gly
225 230 235 240

<210> 131
<211> 717
<212> DNA
<213> Artificial Sequence

<220>
<223> Synthetically generated

<221> unsure
<222> 6
<223> N is A, G, C or T

<221> unsure
<222> 32
<223> N is A, G, C or T

<400> 131
atgaanggg tgaaggaagt aatgaagatc antctggaga tggagggcgc tgttaacggc 60
caccacttta cgatcaaagg ggaaggagga ggataccctt acgaaggagt acagtttatg 120
tctcttgaag tggtaatgg cgcgcctctg ccgtttgggtt ggcatatatt gtcaccagca 180
tttatgtatg gaaaccgtgt attcaccaa tacccaaaag agataccaga ctatccaag 240
cagaccttcc tggaaaggcta tcactgggag cgaataatga ctttgagga cggggcgta 300
tgttgcata caagcgacat cagtgtgaaa ggtgactctt tctactataa gattcacttc 360
actggcgagt ttccctcctca tggtccagtg atgcagagaa agacagtaaa atgggagcca 420
tccactgaaa acatttatcc tcgcgacgaa tttctggagg gagatgtcaa catggctctg 480

ttgcttaaag atggcggcta ttacagagct gaatttagaa gttcttacaa aggcaagaag	540
aaggtcgaga atatgcctga ctaccatttt atagaccacc gcattgagat tatggagcat	600
gacgaggact acaaccatgt caagctgcgc gagattgcta cagctcgcca tcatgggctg	660
aaggtaagc ctatccctaa ccctctccctc ggactcgatt ctacgcgtac cggttag	717

<210> 132
<211> 238
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetically generated

<221> UNSURE
<222> 2
<223> Xaa is Lys or Asp

<221> UNSURE
<222> 11
<223> Xaa is Ile, Asp, Ser, or Thr

<400> 132
Met Xaa Gly Val Lys Glu Val Met Lys Ile Xaa Leu Glu Met Glu Gly
1 5 10 15
Ala Val Asn Gly His His Phe Thr Ile Lys Gly Glu Gly Gly Tyr
20 25 30
Pro Tyr Glu Gly Val Gln Phe Met Ser Leu Glu Val Val Asn Gly Ala
35 40 45
Pro Leu Pro Phe Gly Trp His Ile Leu Ser Pro Ala Phe Met Tyr Gly
50 55 60
Asn Arg Val Phe Thr Lys Tyr Pro Lys Glu Ile Pro Asp Tyr Phe Lys
65 70 75 80
Gln Thr Phe Pro Glu Gly Tyr His Trp Glu Arg Ile Met Thr Phe Glu
85 90 95
Asp Gly Gly Val Cys Cys Ile Thr Ser Asp Ile Ser Val Lys Gly Asp
100 105 110
Ser Phe Tyr Tyr Lys Ile His Phe Thr Gly Glu Phe Pro Pro His Gly
115 120 125
Pro Val Met Gln Arg Lys Thr Val Lys Trp Glu Pro Ser Thr Glu Asn
130 135 140
Ile Tyr Pro Arg Asp Glu Phe Leu Glu Gly Asp Val Asn Met Ala Leu
145 150 155 160
Leu Leu Lys Asp Gly Gly Tyr Tyr Arg Ala Glu Phe Arg Ser Ser Tyr
165 170 175
Lys Gly Lys Lys Val Glu Asn Met Pro Asp Tyr His Phe Ile Asp
180 185 190
His Arg Ile Glu Ile Met Glu His Asp Glu Asp Tyr Asn His Val Lys
195 200 205
Leu Arg Glu Ile Ala Thr Ala Arg His His Gly Leu Lys Gly Lys Pro
210 215 220
Ile Pro Asn Pro Leu Leu Gly Leu Asp Ser Thr Arg Thr Gly
225 230 235

<210> 133
<211> 732
<212> DNA
<213> Artificial Sequence

<220>
<223> Synthetically generated

<400> 133
atgagtattt ccaagagtgt gatcaaggac gaaatgttca tcaagattca tctgaaaggc
acttttaacg gccacaaatt tacatcaa gggaaaggag gaggataccc ttacgaagga

60
120

gtacagttt	tgtctcttga	agtggtaat	ggcgccctc	tgcgtttc	tttcgatata	180
ttgacaccag	catttca	tggaaaccgt	acattcacca	aatacccaa	agagatcca	240
gactattca	agcagaccc	tccctgaaggc	tatcaactgg	agcgaataat	gacttttag	300
gacggggcg	tatgttgc	cacaaggc	atcagtgtga	aagggtgactc	tttctactat	360
aagattca	tcactggc	gtttcctc	aatggtcc	tgatgcagag	gaggatacga	420
ggatggagc	catccactg	agaatgtat	gttgacgaca	agagtgcacg	tgtgctgaag	480
ggacatgacg	acatgactc	gcgggttga	ggtgcccgcc	atttgagagt	tgactttaac	540
acttctaca	taccaagca	ctcgatcaac	atgccggatt	tccattttat	agaccaccgc	600
attgagattc	tgggcaaccc	agaagacaag	ccggtcaagc	tgtacgagat	tgctacagct	660
cgcacatcg	ggctgaaggg	taagcctatc	cctaaccctc	tcctcggact	cgattctacg	720
cgttaccgg	tt	ag				732

<210> 134

<211> 243

<212> PRT

<213> Artificial Sequence

<220>

<223> Synthetically generated

<400> 134

Met	Ser	His	Ser	Lys	Ser	Val	Ile	Lys	Asp	Glu	Met	Phe	Ile	Lys	Ile
1				5				10			15				
His	Leu	Glu	Gly	Thr	Phe	Asn	Gly	His	Lys	Phe	Thr	Ile	Lys	Gly	Glu
				20				25			30				
Gly	Gly	Gly	Tyr	Pro	Tyr	Glu	Gly	Val	Gln	Phe	Met	Ser	Leu	Glu	Val
				35				40			45				
Val	Asn	Gly	Ala	Pro	Leu	Pro	Phe	Ser	Phe	Asp	Ile	Leu	Thr	Pro	Ala
	50				55				60						
Phe	Gln	Tyr	Gly	Asn	Arg	Thr	Phe	Thr	Lys	Tyr	Pro	Lys	Glu	Ile	Pro
	65				70				75					80	
Asp	Tyr	Phe	Lys	Gln	Thr	Phe	Pro	Glu	Gly	Tyr	His	Trp	Glu	Arg	Ile
				85				90			95				
Met	Thr	Phe	Glu	Asp	Gly	Gly	Val	Cys	Cys	Ile	Thr	Ser	Asp	Ile	Ser
				100				105			110				
Val	Lys	Gly	Asp	Ser	Phe	Tyr	Tyr	Lys	Ile	His	Phe	Thr	Gly	Glu	Phe
	115				120			125							
Pro	Pro	Asn	Gly	Pro	Val	Met	Gln	Arg	Arg	Ile	Arg	Gly	Trp	Glu	Pro
	130				135			140							
Ser	Thr	Glu	Val	Met	Tyr	Val	Asp	Asp	Lys	Ser	Asp	Gly	Val	Leu	Lys
	145				150				155					160	
Gly	His	Asp	Asp	Met	Thr	Leu	Arg	Val	Glu	Gly	Gly	Arg	His	Leu	Arg
				165				170				175			
Val	Asp	Phe	Asn	Thr	Ser	Tyr	Ile	Pro	Lys	His	Ser	Ile	Asn	Met	Pro
				180				185			190				
Asp	Phe	His	Phe	Ile	Asp	His	Arg	Ile	Glu	Ile	Leu	Gly	Asn	Pro	Glu
	195				200				205						
Asp	Lys	Pro	Val	Lys	Leu	Tyr	Glu	Ile	Ala	Thr	Ala	Arg	His	His	Gly
	210				215				220						
Leu	Lys	Gly	Lys	Pro	Ile	Pro	Asn	Pro	Leu	Leu	Gly	Leu	Asp	Ser	Thr
	225				230				235					240	
Arg	Thr	Gly													

<210> 135

<211> 717

<212> DNA

<213> Artificial Sequence

<220>

<223> Synthetically generated

<400> 135

atgaaggggg tgaaggaagt aatgaagatc agtctggaga tggagggcgc tgttaacggc

60

caccactttg	agatcgaagg	ggagggaaac	ggaaaacctt	acgcaggagt	acagttatg	120
tctcttgaag	tggtaatgg	cgcgcctctg	ccgtttctt	tcgatatatt	gacaccagca	180
tttatgtatg	gaaaccgtgt	attcaccaa	tacccaaaag	agataccaga	ctatttcaag	240
cagaccttc	ctgaaggcta	tcactggag	cgaataatga	ctttgagga	cggggcgta	300
tgttgcata	caagcgacat	cagtgtaaa	ggtgactctt	tcttctatga	cattaagttc	360
actggcatga	actttcctcc	tcatggtcca	gtgatgcaga	gaaagacagt	aaaatggag	420
ccatccactg	aaaacattt	tcctcgac	gaatttctgg	agggagatgt	caacatggct	480
ctgttgctt	aagatggcg	ccattacaca	tgtgtctta	aactattta	cagatccaag	540
cactcgatca	acatgccga	tttccattt	atagaccacc	gcattgagat	tatggagcat	600
gacgaggact	acaaccatgt	caagctgcgc	gagattgcta	cagctcgcca	tcatggctg	660
aagggttaagc	aaatccctaa	ccctctcctc	ggactcgatt	ctacgggtac	cggtag	717

<210> 136

<211> 238

<212> PRT

<213> Artificial Sequence

<220>

<223> Synthetically generated

<400> 136

Met	Lys	Gly	Val	Lys	Glu	Val	Met	Lys	Ile	Ser	Leu	Glu	Met	Glu	Gly	
1				5				10				15				
Ala	Val	Asn	Gly	His	His	Phe	Glu	Ile	Glu	Gly	Glu	Gly	Asn	Gly	Lys	
				20				25				30				
Pro	Tyr	Ala	Gly	Val	Gln	Phe	Met	Ser	Leu	Glu	Val	Val	Asn	Gly	Ala	
				35			40				45					
Pro	Leu	Pro	Phe	Ser	Phe	Asp	Ile	Leu	Thr	Pro	Ala	Phe	Met	Tyr	Gly	
				50			55				60					
Asn	Arg	Val	Phe	Thr	Lys	Tyr	Pro	Lys	Glu	Ile	Pro	Asp	Tyr	Phe	Lys	
				65			70			75			80			
Gln	Thr	Phe	Pro	Glu	Gly	Tyr	His	Trp	Glu	Arg	Ile	Met	Thr	Phe	Glu	
				85			90				95					
Asp	Gly	Gly	Val	Cys	Cys	Ile	Thr	Ser	Asp	Ile	Ser	Val	Lys	Gly	Asp	
				100			105				110					
Ser	Phe	Phe	Tyr	Asp	Ile	Lys	Phe	Thr	Gly	Met	Asn	Phe	Pro	Pro	His	
				115			120				125					
Gly	Pro	Val	Met	Gln	Arg	Lys	Thr	Val	Lys	Trp	Glu	Pro	Ser	Thr	Glu	
				130			135				140					
Asn	Ile	Tyr	Pro	Arg	Asp	Glu	Phe	Leu	Glu	Gly	Asp	Val	Asn	Met	Ala	
				145			150			155			160			
Leu	Leu	Leu	Lys	Asp	Gly	Gly	His	Tyr	Thr	Cys	Val	Phe	Lys	Thr	Ile	
				165			170				175					
Tyr	Arg	Ser	Lys	His	Ser	Ile	Asn	Met	Pro	Asp	Phe	His	Phe	Ile	Asp	
				180			185				190					
His	Arg	Ile	Glu	Ile	Met	Glu	His	Asp	Glu	Asp	Tyr	Asn	His	Val	Lys	
				195			200				205					
Leu	Arg	Glu	Ile	Ala	Thr	Ala	Arg	His	His	Gly	Leu	Lys	Gly	Lys	Gln	
				210			215				220					
Ile	Pro	Asn	Pro	Leu	Leu	Gly	Leu	Asp	Ser	Thr	Gly	Thr	Gly			
				225			230				235					

<210> 137

<211> 738

<212> DNA

<213> Artificial Sequence

<220>

<223> Synthetically generated

<400> 137

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acttttaacg	gccacaaatt	tacgatcaa	gggaaaggag	gaggataccc	ttacgaagga	120
gtacagttt	tgtctttga	agtggtaat	ggcgcgcctc	tgacgtttc	tttcgatgt	180

ttgacaccag	catttatgt	tggaaaccgt	gtattcacca	aatacccaa	agagatacca	240
gactatttca	agcagacctt	tcctgaaggc	tatcactggg	agcgaataat	gacttttag	300
gacggggcg	tatgttgc	cacaaggcgc	atcagtgtga	aaggtgactc	tttcttctat	360
gacattaagt	tcactggcat	gaacttcc	cctcatggc	cagtgtatgc	gagaagaca	420
gtaaaatggg	agccatccac	tgaacgattg	tatcttcgc	acgggtgtct	gacggacat	480
gacgacatga	ctctgcgggt	tgaagggtgc	cgccatttg	gagttgactt	taacacttct	540
tacataccca	agcactcgat	caacatgccg	gatttccatt	ttatagacca	ccgcatttg	600
attctggc	acccagaaga	caagccggc	aagctgtac	agtgtgctgt	agctcgctat	660
tctctgctgc	ctgagaagaa	caagggtaa	cctatcccta	accctctcc	cgactcgat	720
tctacgcgt	ccggtag					738

<210> 138

<211> 245

<212> PRT

<213> Artificial Sequence

<220>

<223> Synthetically generated

<400> 138

Met	Ser	His	Ser	Lys	Ser	Val	Ile	Lys	Asp	Glu	Met	Phe	Ile	Lys	Ile
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His	Leu	Glu	Gly	Thr	Phe	Asn	Gly	His	Lys	Phe	Thr	Ile	Lys	Gly	Glu
											20				30
Gly	Gly	Gly	Tyr	Pro	Tyr	Glu	Gly	Val	Gln	Phe	Met	Ser	Leu	Glu	Val
											35				45
Val	Asn	Gly	Ala	Pro	Leu	Thr	Phe	Ser	Phe	Asp	Val	Leu	Thr	Pro	Ala
											50				60
Phe	Met	Tyr	Gly	Asn	Arg	Val	Phe	Thr	Lys	Tyr	Pro	Lys	Glu	Ile	Pro
											65				80
Asp	Tyr	Phe	Lys	Gln	Thr	Phe	Pro	Glu	Gly	Tyr	His	Trp	Glu	Arg	Ile
											85				95
Met	Thr	Phe	Glu	Asp	Gly	Gly	Val	Cys	Cys	Ile	Thr	Ser	Asp	Ile	Ser
								100	105						110
Val	Lys	Gly	Asp	Ser	Phe	Phe	Tyr	Asp	Ile	Lys	Phe	Thr	Gly	Met	Asn
											115				125
Phe	Pro	Pro	His	Gly	Pro	Val	Met	Gln	Arg	Lys	Thr	Val	Lys	Trp	Glu
								130	135						140
Pro	Ser	Thr	Glu	Arg	Leu	Tyr	Leu	Arg	Asp	Gly	Val	Leu	Thr	Gly	His
								145	150						160
Asp	Asp	Met	Thr	Leu	Arg	Val	Glu	Gly	Gly	Arg	His	Leu	Arg	Val	Asp
								165	170						175
Phe	Asn	Thr	Ser	Tyr	Ile	Pro	Lys	His	Ser	Ile	Asn	Met	Pro	Asp	Phe
								180	185						190
His	Phe	Ile	Asp	His	Arg	Ile	Glu	Ile	Leu	Gly	Asn	Pro	Glu	Asp	Lys
								195	200						205
Pro	Val	Lys	Leu	Tyr	Glu	Cys	Ala	Val	Ala	Arg	Tyr	Ser	Leu	Leu	Pro
								210	215						220
Glu	Lys	Asn	Lys	Gly	Lys	Pro	Ile	Pro	Asn	Pro	Leu	Leu	Gly	Leu	Asp
								225	230						240
Ser	Thr	Arg	Thr	Gly											
				245											

<210> 139

<211> 729

<212> DNA

<213> Artificial Sequence

<220>

<223> Synthetically generated

<400> 139

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acttttaacg	gccacaaatt	tacgatcaa	gggaaaggag	gaggataccc	ttacgaagg	120

gtacagttta	tgtcttttga	agtggtaat	ggcgccctc	tgacgaaaa	tttcgatgtaa	180
ttgacaccag	catttttgta	tggaaaccgt	gtattcacca	aatacccaa	agggatcca	240
gactatttca	agcagaccc	tcctgaaggc	tatcaactggg	agcgaataat	gacttttag	300
gacgggggcg	tatgttcat	cacaagcgac	atcagtgtga	aagggtactc	tttcttctat	360
gacattaagt	tcactggcat	gaacttccct	cctaattgtc	cagtgtatgc	gaggaggata	420
ctaggatggg	agccatccac	tgaacgattt	tatcttcgcg	acgggtgtct	gacgggacat	480
gacgacatga	ctctgcgggt	tgaaggtggc	ggccattaca	catgtgtctt	taaaaactatt	540
tacagatcca	agaagaaggt	cgagaatatg	cctgactacc	attttataga	ccaccgcatt	600
gagattctgg	gcaacccaga	agacaagccg	gtcaagctgt	acgagattgc	tacagctcgc	660
catcatgggc	tgaagggtaa	gcctatccct	aaccctctcc	tcggactcga	ttctacgcgt	720
accggtag						729

<210> 140

<211> 242

<212> PRT

<213> Artificial Sequence

<220>

<223> Synthetically generated

<400> 140

Met	Ser	His	Ser	Lys	Ser	Val	Ile	Lys	Asp	Glu	Met	Phe	Ile	Lys	Ile
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His	Leu	Glu	Gly	Thr	Phe	Asn	Gly	His	Lys	Phe	Thr	Ile	Lys	Gly	Glu
				20				25			30				
Gly	Gly	Gly	Tyr	Pro	Tyr	Glu	Gly	Val	Gln	Phe	Met	Ser	Leu	Glu	Val
				35				40			45				
Val	Asn	Gly	Ala	Pro	Leu	Thr	Phe	Ser	Phe	Asp	Val	Leu	Thr	Pro	Ala
	50				55				60						
Phe	Met	Tyr	Gly	Asn	Arg	Val	Phe	Thr	Lys	Tyr	Pro	Lys	Gly	Ile	Pro
65					70				75					80	
Asp	Tyr	Phe	Lys	Gln	Thr	Phe	Pro	Glu	Gly	Tyr	His	Trp	Glu	Arg	Ile
				85				90					95		
Met	Thr	Phe	Glu	Asp	Gly	Gly	Val	Cys	Cys	Ile	Thr	Ser	Asp	Ile	Ser
	100						105					110			
Val	Lys	Gly	Asp	Ser	Phe	Phe	Tyr	Asp	Ile	Lys	Phe	Thr	Gly	Met	Asn
	115					120				125					
Phe	Pro	Pro	Asn	Gly	Pro	Val	Met	Gln	Arg	Arg	Ile	Leu	Gly	Trp	Glu
	130					135				140					
Pro	Ser	Thr	Glu	Arg	Leu	Tyr	Leu	Arg	Asp	Gly	Val	Leu	Thr	Gly	His
145					150				155				160		
Asp	Asp	Met	Thr	Leu	Arg	Val	Glu	Gly	Gly	His	Tyr	Thr	Cys	Val	
				165			170				175				
Phe	Lys	Thr	Ile	Tyr	Arg	Ser	Lys	Lys	Val	Glu	Asn	Met	Pro	Asp	
	180				185				190						
Tyr	His	Phe	Ile	Asp	His	Arg	Ile	Glu	Ile	Leu	Gly	Asn	Pro	Glu	Asp
	195					200				205					
Lys	Pro	Val	Lys	Leu	Tyr	Glu	Ile	Ala	Thr	Ala	Arg	His	His	Gly	Leu
210				215				220							
Lys	Gly	Lys	Pro	Ile	Pro	Asn	Pro	Leu	Leu	Gly	Leu	Asp	Ser	Thr	Arg
225				230				235					240		
Thr	Gly														

<210> 141

<211> 726

<212> DNA

<213> Artificial Sequence

<220>

<223> Synthetically generated

<400> 141

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60

gacaaatcta	cgtccaaagg	ggaaggagga	ggataccctt	acgaaggagt	acagtttatg	120
tctcttgcag	tggtaatgg	cgcgcctctg	ccgttttctt	tcgatataatt	gacaccacaa	180
ttacagtatg	gaaacaagtc	attcgctcagc	tacccaaaag	agataccaga	ctatttcaag	240
cagaccttc	ctgaaggcta	tcactgggag	cgaataatga	cttttgagga	cgggggcgta	300
tgttgcata	caagccacat	caggatgaaa	gaggaagagg	agccgcattt	cttctatgac	360
attaagttca	ctggcatgaa	ctttcctcct	catggtcagc	tgatgcagag	aaagacagta	420
aatatgggagc	catccactga	aaacatttat	cctcgcgacg	aatttctgga	gggacatgac	480
gacatgactc	tgcgggttga	aggtggccgc	catttgagag	ttgactttaa	cacttcttac	540
atacccaagc	actcgatcaa	catggcgat	ttccatttta	tagaccaccg	cattgagatt	600
atggagcatg	acgaggacta	caaccatgtc	aagctgcgcg	agattgctac	agctcgccat	660
catgggctga	aggtaagcc	tatccctaac	cctctcctcg	gactcgattc	tacgcgtacc	720
ggtag						726

<210> 142

<211> 241

<212> PRT

<213> Artificial Sequence

<220>

<223> Synthetically generated

<400> 142

Met	Lys	Gly	Val	Lys	Glu	Val	Met	Lys	Ile	Ser	Leu	Glu	Met	Asp	Cys
1				5				10				15			
Thr	Val	Asn	Gly	Asp	Lys	Phe	Thr	Ile	Lys	Gly	Glu	Gly	Gly	Tyr	
								20	25			30			
Pro	Tyr	Glu	Val	Gln	Phe	Met	Ser	Leu	Glu	Val	Val	Asn	Gly	Ala	
								35	40			45			
Pro	Leu	Pro	Phe	Ser	Phe	Asp	Ile	Leu	Thr	Pro	Gln	Leu	Gln	Tyr	Gly
								50	55			60			
Asn	Lys	Ser	Phe	Val	Ser	Tyr	Pro	Lys	Glu	Ile	Pro	Asp	Tyr	Phe	Lys
								65	70			75			80
Gln	Thr	Phe	Pro	Glu	Gly	Tyr	His	Trp	Glu	Arg	Ile	Met	Thr	Phe	Glu
								85	90			95			
Asp	Gly	Gly	Val	Cys	Cys	Ile	Thr	Ser	His	Ile	Arg	Met	Lys	Glu	Glu
								100	105			110			
Glu	Glu	Arg	His	Phe	Phe	Tyr	Asp	Ile	Lys	Phe	Thr	Gly	Met	Asn	Phe
								115	120			125			
Pro	Pro	His	Gly	Pro	Val	Met	Gln	Arg	Lys	Thr	Val	Lys	Trp	Glu	Pro
								130	135			140			
Ser	Thr	Glu	Asn	Ile	Tyr	Pro	Arg	Asp	Glu	Phe	Leu	Glu	Gly	His	Asp
								145	150			155			160
Asp	Met	Thr	Leu	Arg	Val	Glu	Gly	Gly	Arg	His	Leu	Arg	Val	Asp	Phe
								165	170			175			
Asn	Thr	Ser	Tyr	Ile	Pro	Lys	His	Ser	Ile	Asn	Met	Pro	Asp	Phe	His
								180	185			190			
Phe	Ile	Asp	His	Arg	Ile	Glu	Ile	Met	Glu	His	Asp	Glu	Asp	Tyr	Asn
								195	200			205			
His	Val	Lys	Leu	Arg	Glu	Ile	Ala	Thr	Ala	Arg	His	His	Gly	Leu	Lys
								210	215			220			
Gly	Lys	Pro	Ile	Pro	Asn	Pro	Leu	Leu	Gly	Leu	Asp	Ser	Thr	Arg	Thr
								225	230			235			240
Gly															

<210> 143

<211> 732

<212> DNA

<213> Artificial Sequence

<220>

<223> Synthetically generated

<400> 143

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tctcttgaag	tggtaatgg	cgcgcctctg	ccgttttctt	tcgatatatt	gacaccacaa	180
ttacagtatg	gaaaacaagt	attcgtcagc	tacccagccg	ataatccaga	ctataatcaag	240
ctgtccttc	ctgagggctt	tacctggag	cgaagcattc	ctttcaaga	ccaggcctca	300
tgtacgtca	caagccacat	caggatgaaa	gaggaagagg	agcggcattt	ctactataag	360
attcaattca	ctggcgagtt	tcctcctcat	ggtccagtga	tgtagagaaaa	gacagtaaaa	420
tgggagccat	ccactgaacg	attgtatctt	cgcgacgggt	tgctgacggg	agatgtcaac	480
atggctctgt	tgcttaaaga	tggcccat	ttgagagttg	actttaacac	ttcttacata	540
cccaagcact	cgatcaacat	gccggatttc	cattttatag	accaccgcat	tgagattctg	600
ggcaacccag	aagacaagcc	ggtcaagctg	tacgagttgt	ctgtagctcg	ctattctctg	660
ctgcctgaga	agaacaaggg	taagcctatc	cctaaccctc	tcctcggact	cgattctacg	720
cgtaaccgtt	ag					732

<210> 144

<211> 243

<212> PRT

<213> Artificial Sequence

<220>

<223> Synthetically generated

<400> 144

Met	Lys	Gly	Val	Lys	Glu	Val	Met	Lys	Ile	Ser	Leu	Glu	Met	Asp	Cys	
1	5				10				15							
Thr	val	Asn	Gly	Asp	Lys	Phe	Glu	Ile	Glu	Gly	Glu	Gly	Asn	Gly	Lys	
	20				25				30							
Pro	Tyr	Ala	Gly	Val	Gln	Phe	Met	Ser	Leu	Glu	Val	Val	Asn	Gly	Ala	
	35				40				45							
Pro	Leu	Pro	Phe	Ser	Phe	Asp	Ile	Leu	Thr	Pro	Gln	Leu	Gln	Tyr	Gly	
	50				55				60							
Asn	Lys	Ser	Phe	Val	Ser	Tyr	Pro	Ala	Asp	Ile	Pro	Asp	Tyr	Ile	Lys	
	65				70				75							
Leu	Ser	Phe	Pro	Glu	Gly	Phe	Thr	Trp	Glu	Arg	Ser	Ile	Pro	Phe	Gln	
					85				90							
Asp	Gln	Ala	Ser	Cys	Thr	Val	Thr	Ser	His	Ile	Arg	Met	Lys	Glu	Glu	
					100				105							
Glu	Glu	Arg	His	Phe	Tyr	Tyr	Lys	Ile	His	Phe	Thr	Gly	Glu	Phe	Pro	
					115				120							
Pro	His	Gly	Pro	Val	Met	Gln	Arg	Lys	Thr	Val	Lys	Trp	Glu	Pro	Ser	
					130				135							
Thr	Glu	Arg	Leu	Tyr	Leu	Arg	Asp	Gly	Val	Leu	Thr	Gly	Asp	Val	Asn	
					145				150							
Met	Ala	Leu	Leu	Leu	Lys	Asp	Gly	Arg	His	Leu	Arg	Val	Asp	Phe	Asn	
					165				170							
Thr	Ser	Tyr	Ile	Pro	Lys	His	Ser	Ile	Asn	Met	Pro	Asp	Phe	His	Phe	
					180				185							
Ile	Asp	His	Arg	Ile	Glu	Ile	Leu	Gly	Asn	Pro	Glu	Asp	Lys	Pro	Val	
					195				200							
Lys	Leu	Tyr	Glu	Cys	Ala	Val	Ala	Arg	Tyr	Ser	Leu	Leu	Pro	Glu	Lys	
					210				215							
Asn	Lys	Gly	Lys	Pro	Ile	Pro	Asn	Pro	Leu	Leu	Gly	Leu	Asp	Ser	Thr	
					225				230							
Arg	Thr	Gly							235							

<210> 145

<211> 717

<212> DNA

<213> Artificial Sequence

<220>

<223> Synthetically generated

<400> 145

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tctcttgaag	tggtaatgg	cgcgcctctg	ccgtttctt	tcgatatatt	gacaccagca	180
tttatgtatg	gaaaccgtgt	attcacaaa	tacccaaaag	agataccaga	ctatttcaag	240
cagaccttc	ctgaaggcta	tcactggag	cgaataatga	ctttgagga	cgggggcgta	300
tgttgcata	caagcgacat	cagtgtaaa	ggtgactctt	tcttctatga	cattaagttc	360
actggcatga	actttcctcc	tcatggtcca	gtgatgcaga	gaaagacagt	aaaatggag	420
ccatccactg	aacgattgtt	tcttcgcac	ggtgtctga	cggagatgt	caacatggct	480
ctgttgccta	aagatggcgg	ccattacaca	tgtgtcttta	aaactattta	cagatccaag	540
aagaagtcg	agaatatgcc	tgactaccat	ttttagagacc	accgcattga	gattctggc	600
aacccagaag	acaagccgtt	caagctgtac	gagattgtta	cagctcgcca	tcatggctg	660
aagggttaagc	ctatccctaa	ccctccctc	ggactcgatt	ctacgcgtac	cggtag	717

<210> 146

<211> 238

<212> PRT

<213> Artificial Sequence

<220>

<223> Synthetically generated

<400> 146

Met	Lys	Gly	Val	Lys	Glu	Val	Met	Lys	Ile	Ser	Leu	Glu	Met	Asp	Cys
1			5				10					15			
Thr	Val	Asn	Gly	Asp	Lys	Phe	Glu	Ile	Glu	Gly	Glu	Gly	Asn	Gly	Lys
	20					25					30				
Pro	Tyr	Ala	Gly	Val	Gln	Phe	Met	Ser	Leu	Glu	Val	Val	Asn	Gly	Ala
	35					40					45				
Pro	Leu	Pro	Phe	Ser	Phe	Asp	Ile	Leu	Thr	Pro	Ala	Phe	Met	Tyr	Gly
	50					55					60				
Asn	Arg	Val	Phe	Thr	Lys	Tyr	Pro	Lys	Glu	Ile	Pro	Asp	Tyr	Phe	Lys
65					70				75				80		
Gln	Thr	Phe	Pro	Glu	Gly	Tyr	His	Trp	Glu	Arg	Ile	Met	Thr	Phe	Glu
						85			90				95		
Asp	Gly	Gly	Val	Cys	Cys	Ile	Thr	Ser	Asp	Ile	Ser	Val	Lys	Gly	Asp
			100				105					110			
Ser	Phe	Phe	Tyr	Asp	Ile	Lys	Phe	Thr	Gly	Met	Asn	Phe	Pro	Pro	His
	115					120					125				
Gly	Pro	Val	Met	Gln	Arg	Lys	Thr	Val	Lys	Trp	Glu	Pro	Ser	Thr	Glu
	130					135				140					
Arg	Leu	Tyr	Leu	Arg	Asp	Gly	Val	Leu	Thr	Gly	Asp	Val	Asn	Met	Ala
145					150				155				160		
Leu	Leu	Leu	Lys	Asp	Gly	Gly	His	Tyr	Thr	Cys	Val	Phe	Lys	Thr	Ile
						165			170				175		
Tyr	Arg	Ser	Lys	Lys	Val	Glu	Asn	Met	Pro	Asp	Tyr	His	Phe	Ile	
			180			185					190				
Asp	His	Arg	Ile	Glu	Ile	Leu	Gly	Asn	Pro	Glu	Asp	Lys	Pro	Val	Lys
	195					200					205				
Leu	Tyr	Glu	Ile	Ala	Thr	Ala	Arg	His	His	Gly	Leu	Lys	Gly	Lys	Pro
	210					215				220					
Ile	Pro	Asn	Pro	Leu	Leu	Gly	Leu	Asp	Ser	Thr	Arg	Thr	Gly		
	225				230				235						

<210> 147

<211> 513

<212> DNA

<213> Artificial Sequence

<220>

<223> Synthetically generated

<400> 147

ttgagatcga aggggaggga aacggaaaac cttacgcagg aacacagact ttacatctta

60

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cagagaaggaa	aggcaagcct	ctgccgtttg	gttggcatat	attgtcacca	caattacagt	120
atggaaacaa	gtcattcgtc	agctaccagg	gcaatatacc	agacttttc	aagcagaccg	180
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tttaacactt	cttacatacc	caagcactcg	atcaacatgc	cggttcca	ttttataagac	360
caccgattt	atattcgaa	gttcgacgaa	aattacatca	acgtcgagca	ggacgagtgt	420
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<210> 148

<211> 170

<212> PRT

<213> Artificial Sequence

<220>

<223> Synthetically generated

<400> 148

Met	Arg	Ser	Lys	Gly	Arg	Glu	Thr	Glu	Asn	Leu	Thr	Gln	Glu	His	Arg
1				5		10						15			
Leu	Tyr	Ile	Leu	Gln	Arg	Arg	Lys	Ala	Ser	Leu	Cys	Arg	Leu	Val	Gly
				20			25					30			
Ile	Tyr	Cys	His	His	Asn	Tyr	Ser	Met	Glu	Thr	Ser	His	Ser	Ser	Ala
				35			40					45			
Thr	Gln	Ala	Ile	Tyr	Gln	Thr	Phe	Ser	Ser	Arg	Pro	Phe	Leu	Val	Ala
				50			55				60				
Gly	Ile	Pro	Thr	Glu	Val	Met	Tyr	Val	Asp	Asp	Lys	Ser	Asp	Gly	Val
				65			70			75			80		
Leu	Lys	Gly	His	Asp	Asp	Met	Thr	Leu	Arg	Val	Glu	Gly	Gly	Arg	His
				85				90				95			
Leu	Arg	Val	Asp	Phe	Asn	Thr	Ser	Tyr	Ile	Pro	Lys	His	Ser	Ile	Asn
				100				105				110			
Met	Pro	Asp	Phe	His	Phe	Ile	Asp	His	Arg	Ile	Asp	Ile	Arg	Lys	Phe
				115			120				125				
Asp	Glu	Asn	Tyr	Ile	Asn	Val	Glu	Gln	Asp	Glu	Cys	Ala	Val	Ala	Arg
				130			135				140				
Tyr	Ser	Leu	Leu	Pro	Glu	Lys	Asn	Lys	Gly	Lys	Pro	Ile	Pro	Asn	Pro
				145			150				155			160	
Leu	Leu	Gly	Leu	Asp	Ser	Thr	Arg	Thr	Gly						
				165					170						

<210> 149

<211> 690

<212> DNA

<213> Artificial Sequence

<220>

<223> Synthetically generated

<400> 149

atgaagggggg	tgaaggaagt	aatgaagatc	agtctggaga	tggactgcac	tgttaacggc	60
gacaaat	cgatcaaagg	ggaaggagga	ggataccctt	acgaaaggagt	acatttatg	120
tctcttgaag	tggtaatgg	cgcgcctctg	ccgttttctt	tcgatataatt	gacaccagca	180
tttatgtatg	gaaaccgtgt	attcacaaa	tacccaaaag	agataccaga	ctatttcaag	240
cagaccc	ctgaaggcta	ttactggag	cgaaaaatga	cttatgagga	ccccggcata	300
agtaacgtcc	gaagcgacat	cagtgtaaa	ggtgacttt	tctactataa	gattcactc	360
actggcgagt	ttcctcctca	tggccagtg	atgcagagaa	agacagtaaa	atgggagcca	420
tccactgaaa	acatttatcc	tcgcgacgaa	tttctggagg	gagatgtcaa	catggctctg	480
ttgcttaaag	atggccgcca	tttgagagtt	gactttaaca	cttcttacat	acccaagaag	540
aagg	atatgcctga	ctaccat	atagaccacc	gcattgagat	tctgggcaac	600
ccagaagaca	agccggtaa	gctgtacgag	attgctacag	ctcgccatca	tgggctgaag	660
ggtaa	cccttaaccc	tctcctcgg				690

<210> 150

<211> 230
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetically generated

<400> 150
Met Lys Gly Val Lys Glu Val Met Lys Ile Ser Leu Glu Met Asp Cys
1 5 10 15
Thr Val Asn Gly Asp Lys Phe Thr Ile Lys Gly Glu Gly Gly Tyr
20 25 30
Pro Tyr Glu Gly Val Gln Phe Met Ser Leu Glu Val Val Asn Gly Ala
35 40 45
Pro Leu Pro Phe Ser Phe Asp Ile Leu Thr Pro Ala Phe Met Tyr Gly
50 55 60
Asn Arg Val Phe Thr Lys Tyr Pro Lys Glu Ile Pro Asp Tyr Phe Lys
65 70 75 80
Gln Thr Phe Pro Glu Gly Tyr Tyr Trp Glu Arg Lys Met Thr Tyr Glu
85 90 95
Asp Gly Gly Ile Ser Asn Val Arg Ser Asp Ile Ser Val Lys Gly Asp
100 105 110
Ser Phe Tyr Tyr Lys Ile His Phe Thr Gly Glu Phe Pro Pro His Gly
115 120 125
Pro Val Met Gln Arg Lys Thr Val Lys Trp Glu Pro Ser Thr Glu Asn
130 135 140
Ile Tyr Pro Arg Asp Glu Phe Leu Glu Gly Asp Val Asn Met Ala Leu
145 150 155 160
Leu Leu Lys Asp Gly Arg His Leu Arg Val Asp Phe Asn Thr Ser Tyr
165 170 175
Ile Pro Lys Lys Val Glu Asn Met Pro Asp Tyr His Phe Ile Asp
180 185 190
His Arg Ile Glu Ile Leu Gly Asn Pro Glu Asp Lys Pro Val Lys Leu
195 200 205
Tyr Glu Ile Ala Thr Ala Arg His His Gly Leu Lys Gly Lys Pro Ile
210 215 220
Pro Asn Pro Leu Leu Gly
225 230

<210> 151
<211> 393
<212> DNA
<213> Artificial Sequence

<220>
<223> Synthetically generated

<400> 151
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ctgaaggggag atgtcaacat ggctctgttg cttaaagatg gccgccattt gagagttgac 180
tttaaacactt ttacatacc caagcactcg atcaacatgc cgatccca ttttatagac 240
caccgcattt agattatggaa gcatgacgag gactacaacc atgtcaagct gcgcgagtgt 300
gctgttagctc gctattctct gctgccttag aagaacaagg gtaagcctat ccctaaccct 360
ctccctggac tcgattctac gcgtaccggtag 393

<210> 152
<211> 130
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetically generated

<400> 152

Met	Glu	Thr	Val	His	Ser	Pro	Asn	Thr	Gln	Ala	Ile	Tyr	Gln	Thr	Phe
1	5							10	15						
Ser	Ser	Arg	Pro	Phe	Leu	Val	Ala	Gly	Ile	Pro	Thr	Glu	Val	Met	Tyr
		20						25				30			
Val	Asp	Asp	Lys	Ser	Asp	Gly	Val	Leu	Lys	Gly	Asp	Val	Asn	Met	Ala
			35					40			45				
Leu	Leu	Leu	Lys	Asp	Gly	Arg	His	Leu	Arg	Val	Asp	Phe	Asn	Thr	Ser
						55				60					
Tyr	Ile	Pro	Lys	His	Ser	Ile	Asn	Met	Pro	Asp	Phe	His	Phe	Ile	Asp
	65					70				75			80		
His	Arg	Ile	Glu	Ile	Met	Glu	His	Asp	Glu	Asp	Tyr	Asn	His	Val	Lys
			85					90			95				
Leu	Arg	Glu	Cys	Ala	Val	Ala	Arg	Tyr	Ser	Leu	Leu	Pro	Glu	Lys	Asn
			100					105				110			
Lys	Gly	Lys	Pro	Ile	Pro	Asn	Pro	Leu	Leu	Gly	Leu	Asp	Ser	Thr	Arg
			115					120				125			
Thr	Gly														
	130														

<210> 153

<211> 750

<212> DNA

<213> Artificial Sequence

<220>

<223> Synthetically generated

<400> 153

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gtacagttt	tgtcttttga	agtggtaat	ggcgccgc	tgacgtttc	tttcgatgt	180
ttgacaccag	catttatgt	tggaaaccgt	gtattcacca	aataccaaa	agagatacc	240
gactattca	agcagaccc	tcctgaaggc	tatcaactgg	agcgaataat	gacttttgag	300
gacgggggcg	tatgttgc	cacaaggcc	atcaggatga	aagaggaaga	ggagcggcat	360
ttcttcatg	acattaagg	cactggcat	aactttcc	ctcatggtcc	agtgtatgc	420
agaaagacag	taaaatgg	gccatccact	gaagtaatgt	atgttgc	caagagtgc	480
ggtgtgctga	agggagatgt	caacatggct	ctgttgctt	aagatggcgg	ctattacaga	540
gctgaattt	gaagttctt	caaaggcaag	aagaaggctg	agaatatgcc	tgactaccat	600
ttttagacc	accgcattt	gattatgg	catgacgg	actacaacca	tgtcaagctg	660
cgcgagattt	ctacagctcg	ccatcatgg	ctgaagggt	agcctatccc	taaccctctc	720
ctcgactcg	attctacgcg	taccggtag				750

<210> 154

<211> 249

<212> PRT

<213> Artificial Sequence

<220>

<223> Synthetically generated

<400> 154

Met	Ser	His	Ser	Lys	Ser	Val	Ile	Lys	Asp	Glu	Met	Phe	Ile	Lys	Ile
1	5							10	15						
His	Leu	Glu	Gly	Thr	Phe	Asn	Gly	His	Lys	Phe	Thr	Ile	Lys	Gly	Glu
			20					25			30				
Gly	Gly	Gly	Tyr	Pro	Tyr	Glu	Gly	Val	Gln	Phe	Met	Ser	Leu	Glu	Val
			35					40			45				
Val	Asn	Gly	Ala	Pro	Leu	Thr	Phe	Ser	Phe	Asp	Val	Leu	Thr	Pro	Ala
			50					55			60				
Phe	Met	Tyr	Gly	Asn	Arg	Val	Phe	Thr	Lys	Tyr	Pro	Lys	Glu	Ile	Pro
	65					70			75			80			
Asp	Tyr	Phe	Lys	Gln	Thr	Phe	Pro	Glu	Gly	Tyr	His	Trp	Glu	Arg	Ile
			85					90			95				

Met Thr Phe Glu Asp Gly Gly Val Cys Cys Ile Thr Ser His Ile Arg
 100 105 110
 Met Lys Glu Glu Glu Glu Arg His Phe Phe Tyr Asp Ile Lys Phe Thr
 115 120 125
 Gly Met Asn Phe Pro Pro His Gly Pro Val Met Gln Arg Lys Thr Val
 130 135 140
 Lys Trp Glu Pro Ser Thr Glu Val Met Tyr Val Asp Asp Lys Ser Asp
 145 150 155 160
 Gly Val Leu Lys Gly Asp Val Asn Met Ala Leu Leu Leu Lys Asp Gly
 165 170 175
 Gly Tyr Tyr Arg Ala Glu Phe Arg Ser Ser Tyr Lys Gly Lys Lys Lys
 180 185 190
 Val Glu Asn Met Pro Asp Tyr His Phe Ile Asp His Arg Ile Glu Ile
 195 200 205
 Met Glu His Asp Glu Asp Tyr Asn His Val Lys Leu Arg Glu Ile Ala
 210 215 220
 Thr Ala Arg His His Gly Leu Lys Gly Lys Pro Ile Pro Asn Pro Leu
 225 230 235 240
 Leu Gly Leu Asp Ser Thr Arg Thr Gly
 245

<210> 155

<211> 720

<212> DNA

<213> Artificial Sequence

<220>

<223> Synthetically generated

<400> 155

atgaaggggg	tgaaggaagt	aatgaagatc	agtctggaga	tggactgcac	tgttaacggc	60
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tctcttgaag	tgttgaatgg	cgcgcctctg	ccgttttctt	tcgatatatt	gacaccagca	180
tttatgtatg	gaaaccgtgt	attcacaaaa	tacccaaaag	agataccaga	ctatttcaag	240
cagaccttc	ctgaaggcta	tcactggag	cgaataatga	cttttgagga	cggggggcgta	300
tgttgcata	caagcgacat	cagtatgaaa	agtaacaact	gtttcttcta	tgacatataag	360
ttcactggca	tgaactttcc	tcctcatgg	ccagtatgc	agagaaagac	agtaaaaatgg	420
gagccatcca	ctgaacgatt	gtatcttcgc	gacggtgtgc	tgacgggaga	tgtcaacatg	480
gctctgttgc	ttaaagatgg	ccgcattttg	agagttgact	ttaacacttc	ttacataaccc	540
aagaagaagg	tcgagaatat	gcctgactac	cattttatag	accaccgcat	tgagattctg	600
ggcaaccagg	aagacaagcc	ggtcaagctg	tacgagattg	ctacagctg	ccatcatggg	660
ctgaagggt	agcctatccc	taaccctctc	ctcggactcg	attctacg	taccggtag	720

<210> 156

<211> 239

<212> PRT

<213> Artificial Sequence

<220>

<223> Synthetically generated

<400> 156

Met Lys Gly Val Lys Glu Val Met Lys Ile Ser Leu Glu Met Asp Cys						
1	5	10	15			
Thr Val Asn Gly Asp Lys Phe Thr Ile Lys Gly Glu Gly Gly Tyr						
20	25	30				
Pro Tyr Glu Gly Val Gln Phe Met Ser Leu Glu Val Val Asn Gly Ala						
35	40	45				
Pro Leu Pro Phe Ser Phe Asp Ile Leu Thr Pro Ala Phe Met Tyr Gly						
50	55	60				
Asn Arg Val Phe Thr Lys Tyr Pro Lys Glu Ile Pro Asp Tyr Phe Lys						
65	70	75	80			
Gln Thr Phe Pro Glu Gly Tyr His Trp Glu Arg Ile Met Thr Phe Glu						
85	90	95				

Asp Gly Gly Val Cys Cys Ile Thr Ser Asp Ile Ser Met Lys Ser Asn
 100 105 110
 Asn Cys Phe Phe Tyr Asp Ile Lys Phe Thr Gly Met Asn Phe Pro Pro
 115 120 125
 His Gly Pro Val Met Gln Arg Lys Thr Val Lys Trp Glu Pro Ser Thr
 130 135 140
 Glu Arg Leu Tyr Leu Arg Asp Gly Val Leu Thr Gly Asp Val Asn Met
 145 150 155 160
 Ala Leu Leu Leu Lys Asp Gly Arg His Leu Arg Val Asp Phe Asn Thr
 165 170 175
 Ser Tyr Ile Pro Lys Lys Val Glu Asn Met Pro Asp Tyr His Phe
 180 185 190
 Ile Asp His Arg Ile Glu Ile Leu Gly Asn Pro Glu Asp Lys Pro Val
 195 200 205
 Lys Leu Tyr Glu Ile Ala Thr Ala Arg His His Gly Leu Lys Gly Lys
 210 215 220
 Pro Ile Pro Asn Pro Leu Leu Gly Leu Asp Ser Thr Arg Thr Gly
 225 230 235

<210> 157

<211> 738

<212> DNA

<213> Artificial Sequence

<220>

<223> Synthetically generated

<400> 157

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gacaaattta	cgtcaaaagg	ggaaggagga	ggataccctt	acgaaggagt	acagtttatg	120
tctcttgaag	tggtaatgg	cgcgcctctg	ccgtttctt	tcgatataatt	gacaccagca	180
tttatgtatg	gaaaccgtgt	attcaccaa	tacccaaaag	agataccaga	ctatttcaag	240
cagaccttcc	ctgaaggcta	tcactgggag	cgaaaaatga	cttatgagga	cggggcata	300
agtaacgtcc	gaagcgcacat	cagtgtgaaa	ggtgactctt	tcttctatga	cattaagttc	360
actggcatga	actttcttcc	taatggtcca	gtgatgcaga	ggaggatacg	aggatgggag	420
ccatccactg	aagtaatgtt	tgttgacgac	aagagtgcg	gtgtgctgaa	gggagatgtc	480
aacatggctc	tgttgcttaa	agatggccgc	catttgagag	ttgactttaa	cacttcttac	540
atacccaaga	agaagggtcg	gaatatgcct	gactaccatt	ttatagacca	ccgcatttgag	600
attctgggca	acccagaaga	caagccggtc	aagctgtacg	agtgtgctgt	agctcgctat	660
tctctgctgc	ctgagaagaa	caaggtaag	cctatcccta	accctctcct	cggactcgat	720
tctacgcgta	ccggtag					738

<210> 158

<211> 245

<212> PRT

<213> Artificial Sequence

<220>

<223> Synthetically generated

<400> 158

Met Lys Gly Val Lys Glu Val Met Lys Ile Ser Leu Glu Met Asp Cys	1	5	10	15		
Thr Val Asn Gly Asp Lys Phe Thr Ile Lys Gly Glu Gly Gly Tyr	20	25	30			
Pro Tyr Glu Gly Val Gln Phe Met Ser Leu Glu Val Val Asn Gly Ala	35	40	45			
Pro Leu Pro Phe Ser Phe Asp Ile Leu Thr Pro Ala Phe Met Tyr Gly	50	55	60			
Asn Arg Val Phe Thr Lys Tyr Pro Lys Glu Ile Pro Asp Tyr Phe Lys	65	70	75	80		
Gln Thr Phe Pro Glu Gly Tyr His Trp Glu Arg Lys Met Thr Tyr Glu	85	90	95			
Asp Gly Gly Ile Ser Asn Val Arg Ser Asp Ile Ser Val Lys Gly Asp						

100	105	110	
Ser Phe Phe Tyr Asp Ile Lys Phe	Thr Gly Met Asn Phe	Pro Pro Asn	
115	120	125	
Gly Pro Val Met Gln Arg Arg Ile Arg Gly Trp	Glu Pro Ser Thr Glu		
130	135	140	
Val Met Tyr Val Asp Asp Lys Ser Asp Gly Val	Leu Lys Gly Asp Val		
145	150	155	160
Asn Met Ala Leu Leu Lys Asp Gly Arg His	Leu Arg Val Asp Phe		
165	170	175	
Asn Thr Ser Tyr Ile Pro Lys Lys Val Glu Asn Met	Pro Asp Tyr		
180	185	190	
His Phe Ile Asp His Arg Ile Glu Ile Leu Gly Asn	Pro Glu Asp Lys		
195	200	205	
Pro Val Lys Leu Tyr Glu Cys Ala Val Ala Arg	Tyr Ser Leu Leu Pro		
210	215	220	
Glu Lys Asn Lys Gly Lys Pro Ile Pro Asn Pro	Leu Leu Gly Leu Asp		
225	230	235	240
Ser Thr Arg Thr Gly			
245			

<210> 159

<211> 588

<212> DNA

<213> Artificial Sequence

<220>

<223> Synthetically generated

<400> 159

gtgacgaaag	gcgggcctct	gacgtttct	ttcgatgtat	tgacaccaggc	atttcagttat	60
ggaaaccgt	cattcaccaa	atacccaaaa	gagataccag	actatttcaa	gcagaccctt	120
cctgaaggct	atcaactggg	gcgaagcatt	cttttcaag	accaggcctc	atgtaccgtc	180
acaaggcgac	tcatgtgaa	aggtgactct	ttcttctatg	acattaagtt	cactggcatg	240
aactttcctc	ctcatggtcc	agtgtatgcag	agaaagacag	taaaatggga	gccatccact	300
gaacgattgt	atcttcgcga	cggtgtgctg	acggggagata	tccacaagac	tctgaaactt	360
agcgggtggc	gccattacac	atgtgtctt	aaaactattt	acagatccaa	gcactcgatc	420
aacatggccg	atttccattt	tatagaccac	cgcattgaga	ttctgggcaa	cccagaagac	480
aagccggta	agctgtacga	gattgctaca	gctcgccatc	atgggctgaa	gggtaaggct	540
atccctaacc	ctctcctcgg	actcgattct	acgcgtaccg	gttactcg		588

<210> 160

<211> 196

<212> PRT

<213> Artificial Sequence

<220>

<223> Synthetically generated

<400> 160

Met Thr Lys Gly Gly Pro Leu Thr Phe Ser Phe Asp Val	Leu Thr Pro		
1	5	10	15
Ala Phe Gln Tyr Gly Asn Arg Thr Phe Thr Lys Tyr Pro	Lys Glu Ile		
20	25	30	
Pro Asp Tyr Phe Lys Gln Thr Phe Pro Glu Gly Tyr His	Trp Glu Arg		
35	40	45	
Ser Ile Pro Phe Gln Asp Gln Ala Ser Cys Thr Val	Thr Ser Asp Ile		
50	55	60	
Ser Val Lys Gly Asp Ser Phe Phe Tyr Asp Ile Lys Phe	Thr Gly Met		
65	70	75	80
Asn Phe Pro Pro His Gly Pro Val Met Gln Arg Lys	Thr Val Lys Trp		
85	90	95	
Glu Pro Ser Thr Glu Arg Leu Tyr Leu Arg Asp Gly Val	Leu Thr Gly		
100	105	110	
Asp Ile His Lys Thr Leu Lys Leu Ser Gly Gly Gly His	Tyr Thr Cys		

115	120	125	
Val Phe Lys Thr Ile Tyr Arg Ser Lys His Ser Ile Asn Met Pro Asp			
130	135	140	
Phe His Phe Ile Asp His Arg Ile Glu Ile Leu Gly Asn Pro Glu Asp			
145	150	155	160
Lys Pro Val Lys Leu Tyr Glu Ile Ala Thr Ala Arg His His Gly Leu			
165	170	175	
Lys Gly Lys Pro Ile Pro Asn Pro Leu Leu Gly Leu Asp Ser Thr Arg			
180	185	190	
Thr Gly Tyr Ser			
195			

<210> 161

<211> 738

<212> DNA

<213> Artificial Sequence

<220>

<223> Synthetically generated

<400> 161

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gacaaatttg	agatcgaagg	ggagggaaac	ggaaaacctt	acgcaggaac	acagacttta	120
catcttacag	agaagggagg	caagccctcg	ccgtttctt	tcgatatatt	gacaccagca	180
tttatgtatg	gaaaccgtgt	attcacaaaa	tacccaaaag	agataccaga	ctatttcaag	240
cagacccccc	ctgaaggcta	tcactgggag	cgaaaaatga	ctttaggga	cgggggcata	300
agtaacgtcc	gaagccacat	caggatgaaa	gaggaagagg	agccgcattt	ctactataag	360
attcaattca	ctggcgagtt	tcctccat	ggtccagtttga	tgcagagaaa	gacagtaaaa	420
tgggagccat	ccactgaaaa	catttatcct	cgcgacgaat	ttctggaggg	acatgacgac	480
atgactctgc	gggttgaagg	tggcgctat	tacagagctg	aatttagaag	ttcttacaaa	540
ggcaagaaga	agtcgagaa	tatgcctgac	taccattta	tagaccaccg	cattgagatt	600
atggagcatg	acgaggacta	caaccatgtc	aagctgcgcg	agtgtctgt	agctcgctat	660
tctctgctgc	ctgagaagaa	caaggtaag	cctatcccta	accctctcct	cggactcgtat	720
tctacgcgt	ccggtag					738

<210> 162

<211> 245

<212> PRT

<213> Artificial Sequence

<220>

<223> Synthetically generated

<400> 162

Met Lys Gly Val Lys Glu Val Met Lys Ile Ser Leu Glu Met Asp Cys						
1	5	10	15			
Thr Val Asn Gly Asp Lys Phe Glu Ile Glu Gly Glu Gly Asn Gly Lys						
20	25	30				
Pro Tyr Ala Gly Thr Gln Thr Leu His Leu Thr Glu Lys Glu Gly Lys						
35	40	45				
Pro Leu Pro Phe Ser Phe Asp Ile Leu Thr Pro Ala Phe Met Tyr Gly						
50	55	60				
Asn Arg Val Phe Thr Lys Tyr Pro Lys Glu Ile Pro Asp Tyr Phe Lys						
65	70	75	80			
Gln Thr Phe Pro Glu Gly Tyr His Trp Glu Arg Lys Met Thr Tyr Glu						
85	90	95				
Asp Gly Gly Ile Ser Asn Val Arg Ser His Ile Arg Met Lys Glu Glu						
100	105	110				
Glu Glu Arg His Phe Tyr Tyr Lys Ile His Phe Thr Gly Glu Phe Pro						
115	120	125				
Pro His Gly Pro Val Met Gln Arg Lys Thr Val Lys Trp Glu Pro Ser						
130	135	140				
Thr Glu Asn Ile Tyr Pro Arg Asp Glu Phe Leu Glu Gly His Asp Asp						
145	150	155	160			

Met Thr Leu Arg Val Glu Gly Gly Tyr Tyr Arg Ala Glu Phe Arg
 165 170 175
 Ser Ser Tyr Lys Gly Lys Lys Val Glu Asn Met Pro Asp Tyr His
 180 185 190
 Phe Ile Asp His Arg Ile Glu Ile Met Glu His Asp Glu Asp Tyr Asn
 195 200 205
 His Val Lys Leu Arg Glu Cys Ala Val Ala Arg Tyr Ser Leu Leu Pro
 210 215 220
 Glu Lys Asn Lys Gly Lys Pro Ile Pro Asn Pro Leu Leu Gly Leu Asp
 225 230 235 240
 Ser Thr Arg Thr Gly
 245

<210> 163

<211> 603

<212> DNA

<213> Artificial Sequence

<220>

<223> Synthetically generated

<400> 163

gtgaccaaag	gcgggcctct	gccgtttct	ttcgatatat	tgacaccaca	attacagtat	60
ggaaacaagt	cattcgtcag	ctacccaaaa	gagataccag	actatcca	gcagaccctt	120
cctgaaggct	atcaactggaa	gcbaataatg	acttttgagg	acggggcggt	atgtgcac	180
acaaggcgaca	tcaatgtaaa	aagtaacaac	tgtttcttct	atgacattaa	gttcaactggc	240
atgaactttc	cttcataatgg	tccagtatgt	cagaggagga	tacgaggatg	ggagccatcc	300
actgaacgat	tgttatctcg	cgacgggtgt	ctgacggggag	atgtcaacat	ggctcttttg	360
cttaaaagatg	gcggctattt	cagagctgaa	tttagaagtt	cttacaaagg	caagaagaac	420
ctcacgcttc	cgattgttt	ctattatgtt	gacaccaaacc	tttagattct	ggcaaccca	480
gaagacaaggc	cggtaagct	gtacgagtgt	gctgttagctc	gctattctct	gctgcctgag	540
aagaacaagg	gttaaggctat	ccctaaccct	ctcctcggac	tcgattctac	gcgtaccgg	600
						603
tag						

<210> 164

<211> 200

<212> PRT

<213> Artificial Sequence

<220>

<223> Synthetically generated

<400> 164

Met Thr Lys Gly Gly Pro Leu Pro Phe Ser Phe Asp Ile Leu Thr Pro
 1 5 10 15
 Gln Leu Gln Tyr Gly Asn Lys Ser Phe Val Ser Tyr Pro Lys Glu Ile
 20 25 30
 Pro Asp Tyr Phe Lys Gln Thr Phe Pro Glu Gly Tyr His Trp Glu Arg
 35 40 45
 Ile Met Thr Phe Glu Asp Gly Gly Val Cys Cys Ile Thr Ser Asp Ile
 50 55 60
 Ser Met Lys Ser Asn Asn Cys Phe Phe Tyr Asp Ile Lys Phe Thr Gly
 65 70 75 80
 Met Asn Phe Pro Pro Asn Gly Pro Val Met Gln Arg Arg Ile Arg Gly
 85 90 95
 Trp Glu Pro Ser Thr Glu Arg Leu Tyr Leu Arg Asp Gly Val Leu Thr
 100 105 110
 Gly Asp Val Asn Met Ala Leu Leu Lys Asp Gly Gly Tyr Tyr Arg
 115 120 125
 Ala Glu Phe Arg Ser Ser Tyr Lys Gly Lys Lys Asn Leu Thr Leu Pro
 130 135 140
 Asp Cys Phe Tyr Tyr Val Asp Thr Lys Leu Glu Ile Leu Gly Asn Pro
 145 150 155 160
 Glu Asp Lys Pro Val Lys Leu Tyr Glu Cys Ala Val Ala Arg Tyr Ser

Leu	Leu	Pro	Glu	165	Lys	Asn	Lys	Gly	170	Pro	Ile	Pro	Asn	Pro	175
				180					185						190
Gly	Leu	Asp	Ser	195	Thr	Arg	Thr	Gly	200					Leu	Leu

<210> 165

<211> 663

<212> DNA

<213> Artificial Sequence

<220>

<223> Synthetically generated

<400> 165

atgaagggggg	tgaaggaagt	aatgaagatc	agtctggaga	tggactgcac	tgttaacggc	60
gacaaatttg	agatcgaagg	ggagggaaac	ggaaaacctt	acgcaggaac	acagacttta	120
catcttacag	agaaggaaagg	caaggctctg	ccgtttgggtt	ggcatatat	gtcaccagca	180
tttatgtatg	gaaaccgtgt	attcaccaa	tacccaaaag	agataccaga	ctatttcaag	240
cagacccttc	ctgaaggcta	tcactgggag	cgaagcattc	cttttcaaga	ccaggcctca	300
tgtaccgtca	caagcgacat	cagtatgaaa	agtaacaact	gttcttcta	tgacattaag	360
ttcactggca	tgaactttcc	tcctcatggt	ccagtgtgc	agagaaagac	agtaaaaatgg	420
gagccatcca	ctgaaaacat	ttatcctcgc	gacgaatttc	tggagggaga	tgtcaacatg	480
gctctgttgc	ttaaagatgg	cggccattac	acatgtgtct	ttaaaaactat	ttacagatcc	540
aagcactcga	tcaacatgcc	ggatttccat	ttttagacc	accgattga	tattcgaag	600
ttcgacgaaa	attacatcaa	cgcgacgagg	acgagattgc	tacagctcgc	catcatggc	660
tga						663

<210> 166

<211> 220

<212> PRT

<213> Artificial Sequence

<220>

<223> Synthetically generated

<400> 166

Met	Lys	Gly	Val	Lys	Glu	Val	Met	Lys	Ile	Ser	Leu	Glu	Met	Asp	Cys
1			5			10			15						
Thr	Val	Asn	Gly	Asp	Lys	Phe	Glu	Ile	Glu	Gly	Glu	Gly	Asn	Gly	Lys
						20		25					30		
Pro	Tyr	Ala	Gly	Thr	Gln	Thr	Leu	His	Leu	Thr	Glu	Lys	Glu	Gly	Lys
						35		40				45			
Pro	Leu	Pro	Phe	Gly	Trp	His	Ile	Leu	Ser	Pro	Ala	Phe	Met	Tyr	Gly
						50		55			60				
Asn	Arg	Val	Phe	Thr	Lys	Tyr	Pro	Lys	Glu	Ile	Pro	Asp	Tyr	Phe	Lys
65						70			75			80			
Gln	Thr	Phe	Pro	Glu	Gly	Tyr	His	Trp	Glu	Arg	Ser	Ile	Pro	Phe	Gln
						85			90			95			
Asp	Gln	Ala	Ser	Cys	Thr	Val	Thr	Ser	Asp	Ile	Ser	Met	Lys	Ser	Asn
						100		105				110			
Asn	Cys	Phe	Phe	Tyr	Asp	Ile	Lys	Phe	Thr	Gly	Met	Asn	Phe	Pro	Pro
						115		120			125				
His	Gly	Pro	Val	Met	Gln	Arg	Lys	Thr	Val	Lys	Trp	Glu	Pro	Ser	Thr
						130		135			140				
Glu	Asn	Ile	Tyr	Pro	Arg	Asp	Glu	Phe	Leu	Glu	Gly	Asp	Val	Asn	Met
145								150		155			160		
Ala	Leu	Leu	Leu	Lys	Asp	Gly	Gly	His	Tyr	Thr	Cys	Val	Phe	Lys	Thr
								165		170			175		
Ile	Tyr	Arg	Ser	Lys	His	Ser	Ile	Asn	Met	Pro	Asp	Phe	His	Phe	Ile
								180		185			190		
Asp	His	Arg	Ile	Asp	Ile	Arg	Lys	Phe	Asp	Glu	Asn	Tyr	Ile	Asn	Ala
								195		200			205		
Ser	Arg	Thr	Arg	Leu	Leu	Gln	Leu	Ala	Ile	Met	Gly				

210

215

220

<210> 167

<211> 726

<212> DNA

<213> Artificial Sequence

<220>

<223> Synthetically generated

<400> 167

atgaaggggg	tgaaggaagt	aatgaagatc	agtctggaga	tggagggcgc	tgttaacggc	60
caccactta	cgatcaaagg	ggaaggagga	ggataccctt	acgaggagt	acagtttatg	120
tctcttgaag	tggtaatgg	cgcgcctcg	ccgttttctt	tcgatatatt	gacaccagca	180
tttcagtatg	gaaaccgtac	attcacaaa	tacccaaaag	agataccaga	ctatttcaag	240
cagaccttc	ctgaaggcta	tcactggag	cgaataatga	ctttgagga	cgggggcgt	300
tgttgcatca	caagccacat	caggatgaaa	gaggaagagg	agccgcattt	ctactataag	360
attcacttca	ctggcgagtt	tcctcctcat	ggtccagtga	tgcagagaaa	gacagtaaaa	420
tgggagccat	ccactgaaaa	catttattcct	cgcgacgaat	ttctggaggg	agatgtcaac	480
atggctctgt	tgcttaaaga	tggcgccat	tacacatgtg	tctttaaaac	tatttacaga	540
tccaagaaga	aggtcgagaa	tatgcctgac	taccattita	tagaccaccg	cattgagatt	600
atggagcatg	acgaggacta	caaccatgtc	aagctgcgcg	agattgctac	agctcgcacat	660
catgggctga	agggttaagcc	tatccctaac	cctctcctcg	gactcgattc	tacgcgtacc	720
ggtag						726

<210> 168

<211> 241

<212> PRT

<213> Artificial Sequence

<220>

<223> Synthetically generated

<400> 168

Met Lys Gly Val Lys Glu Val Met Lys Ile Ser Leu Glu Met Glu Gly						
1	5	10	15			
Ala Val Asn Gly His His Phe Thr Ile Lys Gly Glu Gly Gly Tyr						
20	25	30				
Pro Tyr Glu Gly Val Gln Phe Met Ser Leu Glu Val Val Asn Gly Ala						
35	40	45				
Pro Leu Pro Phe Ser Phe Asp Ile Leu Thr Pro Ala Phe Gln Tyr Gly						
50	55	60				
Asn Arg Thr Phe Thr Lys Tyr Pro Lys Glu Ile Pro Asp Tyr Phe Lys						
65	70	75	80			
Gln Thr Phe Pro Glu Gly Tyr His Trp Glu Arg Ile Met Thr Phe Glu						
85	90	95				
Asp Gly Gly Val Cys Cys Ile Thr Ser His Ile Arg Met Lys Glu Glu						
100	105	110				
Glu Glu Arg His Phe Tyr Tyr Lys Ile His Phe Thr Gly Glu Phe Pro						
115	120	125				
Pro His Gly Pro Val Met Gln Arg Lys Thr Val Lys Trp Glu Pro Ser						
130	135	140				
Thr Glu Asn Ile Tyr Pro Arg Asp Glu Phe Leu Glu Gly Asp Val Asn						
145	150	155	160			
Met Ala Leu Leu Leu Lys Asp Gly Gly His Tyr Thr Cys Val Phe Lys						
165	170	175				
Thr Ile Tyr Arg Ser Lys Lys Val Glu Asn Met Pro Asp Tyr His						
180	185	190				
Phe Ile Asp His Arg Ile Glu Ile Met Glu His Asp Glu Asp Tyr Asn						
195	200	205				
His Val Lys Leu Arg Glu Ile Ala Thr Ala Arg His His Gly Leu Lys						
210	215	220				
Gly Lys Pro Ile Pro Asn Pro Leu Leu Gly Leu Asp Ser Thr Arg Thr						
225	230	235	240			

Gly

<210> 169
<211> 624
<212> DNA
<213> Artificial Sequence

<220>
<223> Synthetically generated

<400> 169
atggaggcg ctgttaacgg ccaccactt gagatcgaag gggagggaaa cggaaaaacct 60
tacgcaggag tacagtttat gtctcttcaa gtgggtgaatg gcgcgcctct gcccgtttct 120
ttcgatataat tgacaccagg atttatgtat ggaaaccgtg tattcaccaa atacccaaaa 180
gagataccag actatttcaa gcagacctt cctgaaggct atcaactggaa gcbaataatg 240
acttttgggg acgggggcgt atgttgcattt acaagcgcata tcagtgtgaa aggtgactct 300
ttcttctatg acattaagtt cactggcatg aactttccctc ctcatggtcc agtgatgcag 360
agaaagacag taaaatggga gccatccact gaaaacattt atcctcgcga cgaatttcgt 420
gagggagatg tcaacatggc tctgttgctt aaagatggcg gccattacac atgtgtctt 480
aaaactattt acagatccaa gcactcgatc aacatgccgg atttccattt tatagaccac 540
cgcattgaga ttatggagca tgacgaggac tacaaccatg tcaagctgcg cgagattgct 600
acagctcgcc atcatgggctt gaag 624

<210> 170
<211> 208
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetically generated

<400> 170
Met Glu Gly Ala Val Asn Gly His His Phe Glu Ile Glu Gly Glu Gly
1 5 10 15
Asn Gly Lys Pro Tyr Ala Gly Val Gln Phe Met Ser Leu Glu Val Val
20 25 30
Asn Gly Ala Pro Leu Pro Phe Ser Phe Asp Ile Leu Thr Pro Ala Phe
35 40 45
Met Tyr Gly Asn Arg Val Phe Thr Lys Tyr Pro Lys Glu Ile Pro Asp
50 55 60
Tyr Phe Lys Gln Thr Phe Pro Glu Gly Tyr His Trp Glu Arg Ile Met
65 70 75 80
Thr Phe Glu Asp Gly Gly Val Cys Cys Ile Thr Ser Asp Ile Ser Val
85 90 95
Lys Gly Asp Ser Phe Phe Tyr Asp Ile Lys Phe Thr Gly Met Asn Phe
100 105 110
Pro Pro His Gly Pro Val Met Gln Arg Lys Thr Val Lys Trp Glu Pro
115 120 125
Ser Thr Glu Asn Ile Tyr Pro Arg Asp Glu Phe Leu Glu Gly Asp Val
130 135 140
Asn Met Ala Leu Leu Leu Lys Asp Gly Gly His Tyr Thr Cys Val Phe
145 150 155 160
Lys Thr Ile Tyr Arg Ser Lys His Ser Ile Asn Met Pro Asp Phe His
165 170 175
Phe Ile Asp His Arg Ile Glu Ile Met Glu His Asp Glu Asp Tyr Asn
180 185 190
His Val Lys Leu Arg Glu Ile Ala Thr Ala Arg His His Gly Leu Lys
195 200 205

<210> 171
<211> 702
<212> DNA
<213> Artificial Sequence

<220>

<223> Synthetically generated

<400> 171

atgatgaccg	atctgcact	ggactgcact	gttaacggcg	acaaatttac	gatcaaaggg	60
gaaggaggag	gataccctta	cgaaggaaca	aattttgtaa	aacctgttagt	gacgaaaggc	120
gggcctctgc	cgtttggttg	gcatatatgg	tcaccacaat	tacagtatgg	aaacaagtca	180
ttcgtcagct	acccagccga	tataccagac	tatatacagc	tgtccttcc	tgagggcttt	240
acctgggagc	aaaaaatgac	ttatgaggac	gggggcataa	gtaacgtccg	aagccacatc	300
aggatgaaag	aggaagagga	gcggcatttc	tactataaga	ttcacttcac	tggcgagttt	360
cctccatcg	gtccagtgat	gcagagaaaag	acagtaaaat	gggagccatc	cactgaaaac	420
atttatccctc	gcgacgaatt	tctggaggga	catgacgaca	tgactctgcg	ggttgaaggt	480
ggcggccatt	acacatgtgt	ctttaaaact	atttacagat	ccaagaagaa	cctcacgcctt	540
ccggattgt	tctattatgt	agacacccaa	tttgagattc	tggcaaccc	agaagacaag	600
ccggtaaggc	tgtacgagat	tgctacagct	cgccatcatg	ggctgaaggg	taaggctatc	660
cctaaccctc	tcctcgact	cgattctacg	cgtaccgggt	ag		702

<210> 172

<211> 233

<212> PRT

<213> Artificial Sequence

<220>

<223> Synthetically generated

<400> 172

Met Met Thr Asp Leu His Leu Asp Cys Thr Val Asn Gly Asp Lys Phe						
1	5	10	15			
Thr Ile Lys Gly Glu Gly Gly Tyr Pro Tyr Glu Gly Thr Asn Phe						
20	25	30				
Val Lys Leu Val Val Thr Lys Gly Gly Pro Leu Pro Phe Gly Trp His						
35	40	45				
Ile Leu Ser Pro Gln Leu Gln Tyr Gly Asn Lys Ser Phe Val Ser Tyr						
50	55	60				
Pro Ala Asp Ile Pro Asp Tyr Ile Lys Leu Ser Phe Pro Glu Gly Phe						
65	70	75	80			
Thr Trp Glu Arg Lys Met Thr Tyr Glu Asp Gly Gly Ile Ser Asn Val						
85	90	95				
Arg Ser His Ile Arg Met Lys Glu Glu Glu Arg His Phe Tyr Tyr						
100	105	110				
Lys Ile His Phe Thr Gly Glu Phe Pro Pro His Gly Pro Val Met Gln						
115	120	125				
Arg Lys Thr Val Lys Trp Glu Pro Ser Thr Glu Asn Ile Tyr Pro Arg						
130	135	140				
Asp Glu Phe Leu Glu Gly His Asp Asp Met Thr Leu Arg Val Glu Gly						
145	150	155	160			
Gly Gly His Tyr Thr Cys Val Phe Lys Thr Ile Tyr Arg Ser Lys Lys						
165	170	175				
Asn Leu Thr Leu Pro Asp Cys Phe Tyr Tyr Val Asp Thr Lys Leu Glu						
180	185	190				
Ile Leu Gly Asn Pro Glu Asp Lys Pro Val Lys Leu Tyr Glu Ile Ala						
195	200	205				
Thr Ala Arg His His Gly Leu Lys Gly Lys Pro Ile Pro Asn Pro Leu						
210	215	220				
Leu Gly Leu Asp Ser Thr Arg Thr Gly						
225	230					

<210> 173

<211> 729

<212> DNA

<213> Artificial Sequence

<220>

<223> Synthetically generated

<400> 173

atgaaggggg	tgaaggaagt	aatgaagatc	agtctggaga	tggactgcac	tgttaacggc	60
gacaattt	cgatcaaagg	ggaaggagga	ggataccctt	acgaaggagt	acagtttatg	120
tctcttgaag	tggtaatgg	cgcgcctctg	ccgtttctt	tcgatatatt	gacaccagca	180
tttatgtatg	aaaaccgtgt	attcaccaaa	tacccaaag	agataccaga	ctatttcaag	240
cagaccttc	ctgaaggcta	tcactggag	cgaaaaatga	cttatgagga	cggggcata	300
agtaacgtcc	gaagcgacat	cagtgtaaa	ggtgactctt	tctactataa	gattcacttc	360
actggcgagt	ttcctcctaa	tggccagtg	atgcagagga	ggatacgagg	atgggagcca	420
tccactgaaa	acatttatcc	tcgcacgaa	tttctggagg	gacatgacga	catgactctg	480
cgggttgaag	gtggccgc	tttgagagtt	gacttaaca	cttcttacat	acccaagaag	540
aaggtcgaga	atatgcctg	ctaccattt	atagaccacc	gcattgagat	tatggagcat	600
gacgaggact	acaaccatgt	caagctgc	gagtgtgctg	tagctcgct	ttctctgctg	660
cctgagaaga	acaaggtaa	gcctatccc	aaccctctcc	tcggactcga	ttctacgcgt	720
accggtag						729

<210> 174

<211> 242

<212> PRT

<213> Artificial Sequence

<220>

<223> Synthetically generated

<400> 174

Met	Lys	Gly	Val	Lys	Glu	Val	Met	Lys	Ile	Ser	Leu	Glu	Met	Asp	Cys
1				5			10					15			
Thr	Val	Asn	Gly	Asp	Lys	Phe	Thr	Ile	Lys	Gly	Glu	Gly	Gly	Tyr	
						20		25				30			
Pro	Tyr	Glu	Gly	Val	Gln	Phe	Met	Ser	Leu	Glu	Val	Val	Asn	Gly	Ala
					35		40				45				
Pro	Leu	Pro	Phe	Ser	Phe	Asp	Ile	Leu	Thr	Pro	Ala	Phe	Met	Tyr	Gly
					50		55				60				
Asn	Arg	Val	Phe	Thr	Lys	Tyr	Pro	Lys	Glu	Ile	Pro	Asp	Tyr	Phe	Lys
					65		70			75			80		
Gln	Thr	Phe	Pro	Glu	Gly	Tyr	His	Trp	Glu	Arg	Lys	Met	Thr	Tyr	Glu
					85		90				95				
Asp	Gly	Gly	Ile	Ser	Asn	Val	Arg	Ser	Asp	Ile	Ser	Val	Lys	Gly	Asp
					100		105				110				
Ser	Phe	Tyr	Tyr	Lys	Ile	His	Phe	Thr	Gly	Glu	Phe	Pro	Pro	Asn	Gly
					115		120				125				
Pro	Val	Met	Gln	Arg	Arg	Ile	Arg	Gly	Trp	Glu	Pro	Ser	Thr	Glu	Asn
					130		135			140					
Ile	Tyr	Pro	Arg	Asp	Glu	Phe	Leu	Glu	Gly	His	Asp	Asp	Met	Thr	Leu
					145		150			155			160		
Arg	Val	Glu	Gly	Arg	His	Leu	Arg	Val	Asp	Phe	Asn	Thr	Ser	Tyr	
					165		170			175					
Ile	Pro	Lys	Lys	Val	Glu	Asn	Met	Pro	Asp	Tyr	His	Phe	Ile	Asp	
					180		185			190					
His	Arg	Ile	Glu	Ile	Met	Glu	His	Asp	Glu	Asp	Tyr	Asn	His	Val	Lys
					195		200			205					
Leu	Arg	Glu	Cys	Ala	Val	Ala	Arg	Tyr	Ser	Leu	Leu	Pro	Glu	Lys	Asn
					210		215			220					
Lys	Gly	Lys	Pro	Ile	Pro	Asn	Pro	Leu	Leu	Gly	Leu	Asp	Ser	Thr	Arg
					225		230			235			240		
Thr	Gly														

<210> 175

<211> 663

<212> DNA

<213> Artificial Sequence

<220>

<223> Synthetically generated

<400> 175

atgaaggggg	tgaaggaagt	aatgaagatc	agtctggaga	tggactgcac	tgttaacggc	60
gacaattta	cgatcaaagg	ggaaggagga	ggataccctt	acgaaggAAC	acagacttta	120
catcttacag	agaaggaagg	caaggctctg	ccgtttgtt	ggcatatatatt	gtcaccagca	180
tttatgtatg	gaaaccgtgt	attcacaaa	tacccaaaag	agataccaga	ctatttcaag	240
cagaccttc	ctgaaggcta	tcactggag	cgaataatga	cttttgagga	cggggcgta	300
tgttgcata	caagcgacat	cagtgtaaa	ggtgactctt	tctactataa	gattcactc	360
actggcgagt	ttccctcctca	tggccagtg	atgcagagaa	agacagtaaa	atgggagcca	420
tccactgaaa	acatttatcc	tcgcgacgaa	tttctggagg	gagatgtcaa	catggctctg	480
ttgcttaaag	atggccgcca	ttacacatgt	gtctttaaaa	ctatttacag	atccaagaag	540
aaggtcgaga	atatgcctga	ctaccatTTT	atagaccacc	gcattgagat	tatggagcat	600
gacgaggact	acaaccatgt	caagctgcgc	gagattgcta	cagctcgcca	tcatgggctg	660
tag						663

<210> 176

<211> 220

<212> PRT

<213> Artificial Sequence

<220>

<223> Synthetically generated

<400> 176

Met	Lys	Gly	Val	Lys	Glu	Val	Met	Lys	Ile	Ser	Leu	Glu	Met	Asp	Cys	
1			5			10			15							
Thr	Val	Asn	Gly	Asp	Lys	Phe	Thr	Ile	Lys	Gly	Glu	Gly	Gly	Tyr		
	20					25			30							
Pro	Tyr	Glu	Gly	Thr	Gln	Thr	Leu	His	Leu	Thr	Glu	Lys	Glu	Gly	Lys	
	35					40			45							
Pro	Leu	Pro	Phe	Gly	Trp	His	Ile	Leu	Ser	Pro	Ala	Phe	Met	Tyr	Gly	
	50					55			60							
Asn	Arg	Val	Phe	Thr	Lys	Tyr	Pro	Lys	Glu	Ile	Pro	Asp	Tyr	Phe	Lys	
	65					70			75			80				
Gln	Thr	Phe	Pro	Glu	Gly	Tyr	His	Trp	Glu	Arg	Ile	Met	Thr	Phe	Glu	
						85			90			95				
Asp	Gly	Gly	Val	Cys	Cys	Ile	Thr	Ser	Asp	Ile	Ser	Val	Lys	Gly	Asp	
	100					105			110							
Ser	Phe	Tyr	Tyr	Lys	Ile	His	Phe	Thr	Gly	Glu	Phe	Pro	Pro	His	Gly	
	115					120			125							
Pro	Val	Met	Gln	Arg	Lys	Thr	Val	Lys	Trp	Glu	Pro	Ser	Thr	Glu	Asn	
	130					135			140							
Ile	Tyr	Pro	Arg	Asp	Glu	Phe	Leu	Glu	Gly	Asp	Val	Asn	Met	Ala	Leu	
	145					150			155			160				
Leu	Leu	Lys	Asp	Gly	Gly	His	Tyr	Thr	Cys	Val	Phe	Lys	Thr	Ile	Tyr	
						165			170			175				
Arg	Ser	Lys	Lys	Lys	Val	Glu	Asn	Met	Pro	Asp	Tyr	His	Phe	Ile	Asp	
						180			185			190				
His	Arg	Ile	Glu	Ile	Met	Glu	His	Asp	Glu	Asp	Tyr	Asn	His	Val	Lys	
						195			200			205				
Leu	Arg	Glu	Ile	Ile	Ala	Thr	Ala	Arg	His	His	Gly	Leu				
	210					215			220							

<210> 177

<211> 726

<212> DNA

<213> Artificial Sequence

<220>

<223> Synthetically generated

<400> 177

atgaaggggg	tgaaggaagt	aatgaagatc	agtctggaga	tggactgcac	tgttaacggc	60
gacaattta	cgatcaaagg	ggaaggagga	ggataccctt	acgaaggagt	acagtttatg	120
tctctgaag	tggtaatgg	cgcgcctctg	ccgttgggtt	ggcatatatt	gtcaccagca	180
tttagtgtatg	gaaaccgtgt	attcacaaa	tacccaaaag	agataccaga	ctatttcaag	240
cagaccttc	ctgaaggcta	tcactggag	cgaaaaatga	cttaggaga	cgggggcata	300
agtaacgtcc	gaagcgacat	cagtgtaaa	ggtgactctt	tctactataa	gattcaccc	360
actggcgagt	ttccctcctca	tggccactg	atgcagagaa	agacagtaaa	atgggagcca	420
tccactgaag	taatgtatgt	tgacgacaag	agtgacggtg	tgctgaaggg	agatgtcaac	480
atggctctgt	tgcttaaaga	tggccgcat	tacacatgt	tctttaaac	tatcacaga	540
tccaaagaaga	aggtcgagaa	tatgctgac	taccattta	tagaccaccg	cattgagatt	600
atggaggatg	acgaggacta	caaccatgtc	aagctgcgcg	agattgctac	agctgcctat	660
catggctga	agggttaagcc	tatccctaac	cctctcctcg	gactcgattc	tacgcgtacc	720
ggttag						726

<210> 178

<211> 241

<212> PRT

<213> Artificial Sequence

<220>

<223> Synthetically generated

<400> 178

Met	Lys	Gly	Val	Lys	Glu	Val	Met	Lys	Ile	Ser	Leu	Glu	Met	Asp	Cys
1				5				10				15			
Thr	Val	Asn	Gly	Asp	Lys	Phe	Thr	Ile	Lys	Gly	Glu	Gly	Gly	Tyr	
							20		25			30			
Pro	Tyr	Gly	Val	Gln	Phe	Met	Ser	Leu	Glu	Val	Val	Asn	Gly	Ala	
						35		40			45				
Pro	Leu	Pro	Phe	Gly	Trp	His	Ile	Leu	Ser	Pro	Ala	Phe	Met	Tyr	Gly
						50		55			60				
Asn	Arg	Val	Phe	Thr	Lys	Tyr	Pro	Lys	Glu	Ile	Pro	Asp	Tyr	Phe	Lys
						65		70			75			80	
Gln	Thr	Phe	Pro	Glu	Gly	Tyr	His	Trp	Glu	Arg	Lys	Met	Thr	Tyr	Glu
						85		90			95				
Asp	Gly	Gly	Ile	Ser	Asn	Val	Arg	Ser	Asp	Ile	Ser	Val	Lys	Gly	Asp
						100		105			110				
Ser	Phe	Tyr	Tyr	Lys	Ile	His	Phe	Thr	Gly	Glu	Phe	Pro	Pro	His	Gly
						115		120			125				
Pro	Val	Met	Gln	Arg	Lys	Thr	Val	Lys	Trp	Glu	Pro	Ser	Thr	Glu	Val
						130		135			140				
Met	Tyr	Val	Asp	Asp	Lys	Ser	Asp	Gly	Val	Leu	Lys	Gly	Asp	Val	Asn
						145		150			155			160	
Met	Ala	Leu	Leu	Leu	Lys	Asp	Gly	Gly	His	Tyr	Thr	Cys	Val	Phe	Lys
						165		170			175				
Thr	Ile	Tyr	Arg	Ser	Lys	Lys	Lys	Val	Glu	Asn	Met	Pro	Asp	Tyr	His
						180		185			190				
Phe	Ile	Asp	His	Arg	Ile	Glu	Ile	Met	Glu	His	Asp	Glu	Asp	Tyr	Asn
						195		200			205				
His	Val	Lys	Leu	Arg	Glu	Ile	Ala	Thr	Ala	Arg	His	His	Gly	Leu	Lys
						210		215			220				
Gly	Lys	Pro	Ile	Pro	Asn	Pro	Leu	Leu	Gly	Leu	Asp	Ser	Thr	Arg	Thr
						225		230			235			240	
Gly															

<210> 179

<211> 825

<212> DNA

<213> Artificial Sequence

<220>

<223> Synthetically generated

<400> 179

atgatggcga	tttccgcctc	aaagaacgtc	atcatcatcg	taatcatata	ctccctgcagc	60
actagtgcgt	attcgtcgaa	ctcttactct	ggatcctcct	tcgcgaatgg	gattgcggaa	120
gaaatgatga	ccgatctgca	tctggactgc	actgttaacg	gcaaaaaatt	tacgatcaa	180
ggggaaaggag	gaggataccc	ttacaagga	gtacagttta	tgtctcttga	agtggtaat	240
ggcgcgcctc	tgccgtttc	tttcgatata	ttgacaccag	catttatgt	tggaaaccgt	300
gtattcacca	aataccaaa	agagatacca	gactattca	agcagacctt	tcctgaaggc	360
tatcactggg	agcgaataat	gacttttag	gacggggcg	tatgttgc	cacaagcgac	420
atcagtgtga	aagggtgactc	tttcttctat	gacattaagt	tcactggcat	gaacttcct	480
cctaattggc	cagtgtatgca	gaggaggata	cgaggatgg	agccatccac	tgaacgattg	540
tatcttcgcg	acggtgtgtct	gacgggacat	gacgacatga	ctctgcgggt	tgaaggtggc	600
cgccatttga	gagttgactt	taacacttct	tacataccca	agaagaacct	cacgctccg	660
gattgttct	attatgtaga	caccaaactt	gatattcgg	agttcgacga	aaattacatc	720
aacgtcgagc	aggacgagat	tgctacagct	cgccatcatg	ggctgaaggg	taagcctatc	780
cctaaccctc	tcctcgact	cgattctacg	cgtaccgta	gctcg		825

<210> 180

<211> 275

<212> PRT

<213> Artificial Sequence

<220>

<223> Synthetically generated

<400> 180

Met	Met	Ala	Ile	Ser	Ala	Leu	Lys	Asn	Val	Ile	Ile	Ile	Ile	Ile	
1		5				10				15					
Tyr	Ser	Cys	Ser	Thr	Ser	Ala	Asp	Ser	Ser	Asn	Ser	Tyr	Ser	Gly	Ser
				20			25				30				
Ser	Phe	Ala	Asn	Gly	Ile	Ala	Glu	Glu	Met	Met	Thr	Asp	Leu	His	Leu
					35		40				45				
Asp	Cys	Thr	Val	Asn	Gly	Asp	Lys	Phe	Thr	Ile	Lys	Gly	Glu	Gly	Gly
					50		55			60					
Gly	Tyr	Pro	Tyr	Glu	Gly	Val	Gln	Phe	Met	Ser	Leu	Glu	Val	Val	Asn
					65		70			75			80		
Gly	Ala	Pro	Leu	Pro	Phe	Ser	Phe	Asp	Ile	Leu	Thr	Pro	Ala	Phe	Met
					85		90			95					
Tyr	Gly	Asn	Arg	Val	Phe	Thr	Lys	Tyr	Pro	Lys	Glu	Ile	Pro	Asp	Tyr
				100			105			110					
Phe	Lys	Gln	Thr	Phe	Pro	Glu	Gly	Tyr	His	Trp	Glu	Arg	Ile	Met	Thr
				115			120			125					
Phe	Glu	Asp	Gly	Gly	Val	Cys	Cys	Ile	Thr	Ser	Asp	Ile	Ser	Val	Lys
					130		135			140					
Gly	Asp	Ser	Phe	Phe	Tyr	Asp	Ile	Lys	Phe	Thr	Gly	Met	Asn	Phe	Pro
					145		150			155			160		
Pro	Asn	Gly	Pro	Val	Met	Gln	Arg	Arg	Ile	Arg	Gly	Trp	Glu	Pro	Ser
					165		170			175					
Thr	Glu	Arg	Leu	Tyr	Leu	Arg	Asp	Gly	Val	Leu	Thr	Gly	His	Asp	Asp
				180			185			190					
Met	Thr	Leu	Arg	Val	Glu	Gly	Gly	Arg	His	Leu	Arg	Val	Asp	Phe	Asn
				195			200			205					
Thr	Ser	Tyr	Ile	Pro	Lys	Lys	Asn	Leu	Thr	Leu	Pro	Asp	Cys	Phe	Tyr
				210			215			220					
Tyr	Val	Asp	Thr	Lys	Leu	Asp	Ile	Arg	Lys	Phe	Asp	Glu	Asn	Tyr	Ile
				225			230			235			240		
Asn	Val	Glu	Gln	Asp	Glu	Ile	Ala	Thr	Ala	Arg	His	His	Gly	Leu	Lys
				245			250			255					
Gly	Lys	Pro	Ile	Pro	Asn	Pro	Leu	Leu	Gly	Leu	Asp	Ser	Thr	Arg	Thr
				260			265			270					
Gly	Ser	Ser													
			275												

<210> 181

<211> 750

<212> DNA

<213> Artificial Sequence

<220>

<223> Synthetically generated

<400> 181

atgagtcatt ccaagagtgt gatcaaggac gaaatgttca tcaagattca tctggaggc	60
actttAACG gcccacaaatt tacatcaaa ggggaaggag gaggataccc ttacgaagga	120
gtacagttta tgtcttttga agtggtaat ggccgcgcctc tgccgtttc ttgcata	180
ttgacaccag catttatgtt tgaaaccgt gtattcacca aatacccaa agagatacca	240
gactattca agcagacccct tcctgaaggc tatcaactggg agcgaataat gacttttag	300
gacggggcg tatgttgcat cacaagccac atcaggatga aagaggaaga ggagcggcat	360
ttcttcatg acattaatgtt cactggcatg aactttcctc ctcatggtcc agtgatgcag	420
agaaagacag taaaatggga gccatccact gaacgattgt atcttcgcga cggtgtctg	480
acgggacatg acgacatgac tctgcgggtt gaaggtggcc gccatttgag agttgacttt	540
aacacttctt acatacccaa gcactcgatc aacatgcggg attccattt tatagaccac	600
cgcattgaga ttatggaga tgacaggac tacaaccatg tcaagctgcg cgagtgtgct	660
gtagctcgct attctctgtt gcctgagaag aacaaggta agcctatccc taaccctctc	720
ctcgactcg attctacgct taccggtag	750

<210> 182

<211> 249

<212> PRT

<213> Artificial Sequence

<220>

<223> Synthetically generated

<400> 182

Met Ser His Ser Lys Ser Val Ile Lys Asp Glu Met Phe Ile Lys Ile	
1 5 10 15	
His Leu Glu Gly Thr Phe Asn Gly His Lys Phe Thr Ile Lys Glu	
20 25 30	
Gly Gly Gly Tyr Pro Tyr Glu Gly Val Gln Phe Met Ser Leu Glu Val	
35 40 45	
Val Asn Gly Ala Pro Leu Pro Phe Ser Phe Asp Ile Leu Thr Pro Ala	
50 55 60	
Phe Met Tyr Gly Asn Arg Val Phe Thr Lys Tyr Pro Lys Glu Ile Pro	
65 70 75 80	
Asp Tyr Phe Lys Gln Thr Phe Pro Glu Gly Tyr His Trp Glu Arg Ile	
85 90 95	
Met Thr Phe Glu Asp Gly Gly Val Cys Cys Ile Thr Ser His Ile Arg	
100 105 110	
Met Lys Glu Glu Glu Glu Arg His Phe Phe Tyr Asp Ile Lys Phe Thr	
115 120 125	
Gly Met Asn Phe Pro Pro His Gly Pro Val Met Gln Arg Lys Thr Val	
130 135 140	
Lys Trp Glu Pro Ser Thr Glu Arg Leu Tyr Leu Arg Asp Gly Val Leu	
145 150 155 160	
Thr Gly His Asp Asp Met Thr Leu Arg Val Glu Gly Arg His Leu	
165 170 175	
Arg Val Asp Phe Asn Thr Ser Tyr Ile Pro Lys His Ser Ile Asn Met	
180 185 190	
Pro Asp Phe His Phe Ile Asp His Arg Ile Glu Ile Met Glu His Asp	
195 200 205	
Glu Asp Tyr Asn His Val Lys Leu Arg Glu Cys Ala Val Ala Arg Tyr	
210 215 220	
Ser Leu Leu Pro Glu Lys Asn Lys Gly Lys Pro Ile Pro Asn Pro Leu	
225 230 235 240	
Leu Gly Leu Asp Ser Thr Arg Thr Gly	
245	

<210> 183

<211> 726

<212> DNA

<213> Artificial Sequence

<220>

<223> Synthetically generated

<400> 183

atgaaggggg	tgaaggaagt	aatgaagatc	agtctggaga	tggactgcac	tgttaacggc	60
gacaattta	cgatcaaagg	ggaaggagga	ggataccctt	acgaaggaac	aaattttgt	120
aaactttag	tgacgaaaagg	cgggcctctg	cggtttctt	tcgatatatt	gacaccagca	180
tttatgtatg	gaaaccgtgt	attcaccaa	tacccaaaag	agataccaga	ctatttcaag	240
cagacccccc	ctgaaggcta	tcactggag	cgaataatga	cttttggaga	cgggggcgt	300
tgttgcata	caagcgacat	cagtgtgaaa	ggtgactctt	tcttctatga	cattaagttc	360
actggcatga	actttccccc	tcatggtcca	gtgtgcaga	gaaagacagt	aaaatgggag	420
ccatccactg	aagtaatgt	tggtgacgac	aagagtgacg	gtgtgctgaa	gggagatgtc	480
aacatggctc	tgttgcctaa	agatggccgc	catttggag	ttgactttaa	cacttcttac	540
atacccaaga	agaaggctga	gaatatgcct	gactaccatt	ttatagacca	ccgcatttag	600
attctggca	acccagaaga	caagccggc	aagctgtacg	agattgctac	agctcgccat	660
catgggctga	aggtaagcc	tatcccta	cctccctcg	gactcgattc	tacgcgtacc	720
ggttag						726

<210> 184

<211> 241

<212> PRT

<213> Artificial Sequence

<220>

<223> Synthetically generated

<400> 184

Met	Lys	Gly	Val	Lys	Glu	Val	Met	Lys	Ile	Ser	Leu	Glu	Met	Asp	Cys
1				5			10					15			
Thr	Val	Asn	Gly	Asp	Lys	Phe	Thr	Ile	Lys	Gly	Glu	Gly	Gly	Tyr	
							20		25			30			
Pro	Tyr	Glu	Gly	Thr	Asn	Phe	Val	Lys	Leu	Val	Val	Thr	Lys	Gly	Gly
							35		40			45			
Pro	Leu	Pro	Phe	Ser	Phe	Asp	Ile	Leu	Thr	Pro	Ala	Phe	Met	Tyr	Gly
							50		55			60			
Asn	Arg	Val	Phe	Thr	Lys	Tyr	Pro	Lys	Glu	Ile	Pro	Asp	Tyr	Phe	Lys
							65		70		75		80		
Gln	Thr	Phe	Pro	Glu	Gly	Tyr	His	Trp	Glu	Arg	Ile	Met	Thr	Phe	Glu
							85		90			95			
Asp	Gly	Gly	Val	Cys	Cys	Ile	Thr	Ser	Asp	Ile	Ser	Val	Lys	Gly	Asp
							100		105			110			
Ser	Phe	Phe	Tyr	Asp	Ile	Lys	Phe	Thr	Gly	Met	Asn	Phe	Pro	Pro	His
							115		120			125			
Gly	Pro	Val	Met	Gln	Arg	Lys	Thr	Val	Lys	Trp	Glu	Pro	Ser	Thr	Glu
							130		135			140			
Val	Met	Tyr	Val	Asp	Asp	Lys	Ser	Asp	Gly	Val	Leu	Lys	Gly	Asp	Val
							145		150		155		160		
Asn	Met	Ala	Leu	Leu	Lys	Asp	Gly	Arg	His	Leu	Arg	Val	Asp	Phe	
							165		170			175			
Asn	Thr	Ser	Tyr	Ile	Pro	Lys	Lys	Val	Glu	Asn	Met	Pro	Asp	Tyr	
							180		185			190			
His	Phe	Ile	Asp	His	Arg	Ile	Glu	Ile	Leu	Gly	Asn	Pro	Glu	Asp	Lys
							195		200			205			
Pro	Val	Lys	Leu	Tyr	Glu	Ile	Ala	Thr	Ala	Arg	His	His	Gly	Leu	Lys
							210		215			220			
Gly	Lys	Pro	Ile	Pro	Asn	Pro	Leu	Leu	Gly	Leu	Asp	Ser	Thr	Arg	Thr
							225		230			235			240
Gly															

<210> 185
<211> 726
<212> DNA
<213> Artificial Sequence

<220>
<223> Synthetically generated

<400> 185

atgaaggggg	tgaaggaagt	aatgaagatc	agtctggaga	tggactgcac	tgttaacggc	60
gacaattt	cgatcaaagg	ggaaggagga	ggataccctt	acgaaggaac	acagacttta	120
catcttacag	agaaggaagg	caagcctctg	acgtttctt	tcgatgtatt	gacaccacaa	180
ttacagtatg	gaaacaagt	attcgctcagc	tacccaaaag	agataccaga	ctatttcaag	240
cagacccccc	ctgaaggcata	tcactggag	cgaagcattc	ctttcaaga	ccagggctca	300
tgtaccgtca	caagccacat	caggatgaaa	gaggaagagg	agccgcattt	cttctatgac	360
attaagttca	ctggcatgaa	ctttccctct	catggtccag	tgatgcagag	aaagacagta	420
aaatgggagc	catccactga	aaacatttat	cctcgcgacg	aatttctgga	gggacatgac	480
gacatgactc	tgcggggttga	aggtgttgcgc	catttgagag	ttgactttaa	cacttcttac	540
atacc caaga	agaaggtcga	gaatatgcct	gactaccatt	ttatagacca	ccgcatttag	600
attctgggca	acccagaaga	caagccgtc	aagctgtacg	agattgctac	agctcgccat	660
catgggctga	agggttaagcc	tatccctaac	actctccctg	gactcgattc	tacgcgtacc	720
ggtttag						726

<210> 186
<211> 241
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetically generated

<400> 186

Met Lys Gly Val Lys Glu Val Met Lys Ile Ser Leu Glu Met Asp Cys						
1	5	10	15			
Thr Val Asn Gly Asp Lys Phe Thr Ile Lys Gly Glu Gly Gly Tyr						
20	25	30				
Pro Tyr Glu Gly Thr Gln Thr Leu His Leu Thr Glu Lys Glu Gly Lys						
35	40	45				
Pro Leu Thr Phe Ser Phe Asp Val Leu Thr Pro Gln Leu Gln Tyr Gly						
50	55	60				
Asn Lys Ser Phe Val Ser Tyr Pro Lys Glu Ile Pro Asp Tyr Phe Lys						
65	70	75	80			
Gln Thr Phe Pro Glu Gly Tyr His Trp Glu Arg Ser Ile Pro Phe Gln						
85	90	95				
Asp Gln Ala Ser Cys Thr Val Thr Ser His Ile Arg Met Lys Glu Glu						
100	105	110				
Glu Glu Arg His Phe Phe Tyr Asp Ile Lys Phe Thr Gly Met Asn Phe						
115	120	125				
Pro Pro His Gly Pro Val Met Gln Arg Lys Thr Val Lys Trp Glu Pro						
130	135	140				
Ser Thr Glu Asn Ile Tyr Pro Arg Asp Glu Phe Leu Glu Gly His Asp						
145	150	155	160			
Asp Met Thr Leu Arg Val Glu Gly Gly Arg His Leu Arg Val Asp Phe						
165	170	175				
Asn Thr Ser Tyr Ile Pro Lys Lys Val Glu Asn Met Pro Asp Tyr						
180	185	190				
His Phe Ile Asp His Arg Ile Glu Ile Leu Gly Asn Pro Glu Asp Lys						
195	200	205				
Pro Val Lys Leu Tyr Glu Ile Ala Thr Ala Arg His His Gly Leu Lys						
210	215	220				
Gly Lys Pro Ile Pro Asn Thr Leu Leu Gly Leu Asp Ser Thr Arg Thr						
225	230	235	240			
Gly						

<210> 187
<211> 714
<212> DNA
<213> Artificial Sequence

<220>
<223> Synthetically generated

<400> 187

atgaaggggg	tgaaggaagt	aatgaagatc	agtctggaga	tggagggcgc	tgttaacggc	60
caccacttta	cgatcaaagg	ggaaggagga	ggataccctt	acgaaggaac	acagacttta	120
catcttacag	agaaggaaagg	caaggctctg	ccgttttctt	tcgatatatt	gacaccagca	180
ttttagttag	gaaaccgtgt	attcacaaa	tacccaaaag	agataccaga	ctatttcaag	240
cagacccttt	ctgaaggcta	tcactggag	cgaataatga	cttttgagga	cgggggcgt	300
tgttgcata	caagcgcacat	cagtgtgaaa	ggtgactt	tctactataa	gattcacttc	360
actggcgagt	ttccttcctca	tggccagtg	atgcagagaa	agacagtaaa	atgggagcca	420
tccactgaaa	acatttatcc	tcgcgacgaa	tttctggagg	gagatgtcaa	catggctctg	480
ttgcttaaag	atggccgcca	tttgagagtt	gacttaaca	cttcttacat	acccaagaag	540
aaggtcgaga	atatgcctga	ctaccattt	atagaccacc	gcattgagat	tctggcaac	600
ccagaagaca	agccggcgtcaa	gctgtacgag	attgctacag	ctcgccatca	tgggctgaag	660
gttaagccta	tccctaacc	tctctcgga	ctcgattcta	cgcgtaccgg	tttag	714

<210> 188
<211> 237
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetically generated

<400> 188

Met Lys Gly Val Lys Glu Val Met Lys Ile Ser Leu Glu Met Glu Gly						
1	5	10	15			
Ala Val Asn Gly His His Phe Thr Ile Lys Gly Glu Gly Gly Tyr						
20	25	30				
Pro Tyr Glu Gly Thr Gln Thr Leu His Leu Thr Glu Lys Glu Gly Lys						
35	40	45				
Pro Leu Pro Phe Ser Phe Asp Ile Leu Thr Pro Ala Phe Met Tyr Gly						
50	55	60				
Asn Arg Val Phe Thr Lys Tyr Pro Lys Glu Ile Pro Asp Tyr Phe Lys						
65	70	75	80			
Gln Thr Phe Pro Glu Gly Tyr His Trp Glu Arg Ile Met Thr Phe Glu						
85	90	95				
Asp Gly Gly Val Cys Cys Ile Thr Ser Asp Ile Ser Val Lys Gly Asp						
100	105	110				
Ser Phe Tyr Tyr Lys Ile His Phe Thr Gly Glu Phe Pro Pro His Gly						
115	120	125				
Pro Val Met Gln Arg Lys Thr Val Lys Trp Glu Pro Ser Thr Glu Asn						
130	135	140				
Ile Tyr Pro Arg Asp Glu Phe Leu Glu Gly Asp Val Asn Met Ala Leu						
145	150	155	160			
Leu Leu Lys Asp Gly Arg His Leu Arg Val Asp Phe Asn Thr Ser Tyr						
165	170	175				
Ile Pro Lys Lys Val Glu Asn Met Pro Asp Tyr His Phe Ile Asp						
180	185	190				
His Arg Ile Glu Ile Leu Gly Asn Pro Glu Asp Lys Pro Val Lys Leu						
195	200	205				
Tyr Glu Ile Ala Thr Ala Arg His His Gly Leu Lys Gly Lys Pro Ile						
210	215	220				
Pro Asn Pro Leu Leu Gly Leu Asp Ser Thr Arg Thr Gly						
225	230	235				

<210> 189

<211> 720

<212> DNA

<213> Artificial Sequence

<220>

<223> Synthetically generated

<400> 189

atgaaggggg	tgaaggaagt	aatgaagatc	agtctggaga	tggactgcac	tgttaacggc	60
gacaattt	cgatcaaagg	ggaaggagga	ggataccctt	acgaaggagt	acagtttatg	120
tctcttgaag	ttgtgaatgg	cgcgcctctg	acgtttctt	tcgatgtatt	gacaccagca	180
tttatgtatg	aaaaccgtgt	attcacaaaa	tacccaaaag	agataccaga	ctatttcaag	240
cagaccttc	ctgaaggcta	tcactggag	cgaataatga	ctttgagga	cgggggcgta	300
tgttgcata	caagcgacat	cagtgtgaaa	ggtgactctt	tctactataa	gattcactc	360
actggcgagt	ttccctcctca	tggccactg	atgcagagaa	agacagtaaa	atgggagcca	420
tccactgaag	taatgtatg	tgacacaag	agtgacggtg	tgctgaaggg	agatgtcaac	480
atggctctgt	tgcttaaaa	tgccggccat	tacacatgt	tctttaaaac	tatttacaga	540
tccaagcact	cgatcaacat	gccggatttc	cattttatag	accaccgcat	tgagattctg	600
ggcaacccag	aagacaagcc	ggtaagctg	tacgagattg	ctacagctcg	ccatcatggg	660
ctgaagggt	agcctatccc	taaccctctc	ctcggactcg	attctacg	taccggtag	720

<210> 190

<211> 239

<212> PRT

<213> Artificial Sequence

<220>

<223> Synthetically generated

<400> 190

Met	Lys	Gly	Val	Lys	Glu	Val	Met	Lys	Ile	Ser	Leu	Glu	Met	Asp	Cys
1				5			10					15			
Thr	Val	Asn	Gly	Asp	Lys	Phe	Thr	Ile	Lys	Gly	Glu	Gly	Gly	Tyr	
					20				25			30			
Pro	Tyr	Glu	Gly	Val	Gln	Phe	Met	Ser	Leu	Glu	Val	Val	Asn	Gly	Ala
					35			40				45			
Pro	Leu	Thr	Phe	Ser	Phe	Asp	Val	Leu	Thr	Pro	Ala	Phe	Met	Tyr	Gly
					50			55			60				
Asn	Arg	Val	Phe	Thr	Lys	Tyr	Pro	Lys	Glu	Ile	Pro	Asp	Tyr	Phe	Lys
					65			70			75		80		
Gln	Thr	Phe	Pro	Glu	Gly	Tyr	His	Trp	Glu	Arg	Ile	Met	Thr	Phe	Glu
					85			90			95				
Asp	Gly	Gly	Val	Cys	Cys	Ile	Thr	Ser	Asp	Ile	Ser	Val	Lys	Gly	Asp
					100			105			110				
Ser	Phe	Tyr	Tyr	Lys	Ile	His	Phe	Thr	Gly	Glu	Phe	Pro	Pro	His	Gly
					115			120			125				
Pro	Val	Met	Gln	Arg	Lys	Thr	Val	Lys	Trp	Glu	Pro	Ser	Thr	Glu	Val
					130			135			140				
Met	Tyr	Val	Asp	Asp	Lys	Ser	Asp	Gly	Val	Leu	Lys	Gly	Asp	Val	Asn
					145			150			155		160		
Met	Ala	Leu	Leu	Leu	Lys	Asp	Gly	Gly	His	Tyr	Thr	Cys	Val	Phe	Lys
					165			170			175				
Thr	Ile	Tyr	Arg	Ser	Lys	His	Ser	Ile	Asn	Met	Pro	Asp	Phe	His	Phe
					180			185			190				
Ile	Asp	His	Arg	Ile	Glu	Ile	Leu	Gly	Asn	Pro	Glu	Asp	Lys	Pro	Val
					195			200			205				
Lys	Leu	Tyr	Glu	Ile	Ala	Thr	Ala	Arg	His	His	Gly	Leu	Lys	Gly	Lys
					210			215			220				
Pro	Ile	Pro	Asn	Pro	Leu	Leu	Gly	Leu	Asp	Ser	Thr	Arg	Thr	Gly	
					225			230			235				

<210> 191

<211> 408

<212> DNA

<213> Artificial Sequence

<220>

<223> Synthetically generated

<400> 191

atgaaagagg aagaggagcg	gcatttctac	tataagattc	acttcactgg	cgagtttcct	60
cctcatggtc	cagtgtatca	gagaagaca	gtaaaatggg	agccatccac	120
tatgttgcg	acaagagtgta	cggtgtctg	aaggagatg	tcaacatggc	180
aaagatggcg	gccattcac	atgtgtctt	aaaactattt	acagatccaa	240
aacatgccgg	atttccattt	tatagaccac	cgcattgaga	ttatggagca	300
tacaaccatg	tcaagctgcg	cgagattgct	acagtcgccc	atcatgggct	360
cctatcccta	accctctcct	cggactcgat	tctacgcgt	ccggtag	408

<210> 192

<211> 135

<212> PRT

<213> Artificial Sequence

<220>

<223> Synthetically generated

<400> 192

Met Lys Glu Glu Glu Glu Arg His Phe Tyr Tyr Lys Ile His Phe Thr					
1	5	10	15		
Gly Glu Phe Pro Pro His Gly Pro Val Met Gln Arg Lys Thr Val Lys					
20	25	30			
Trp Glu Pro Ser Thr Glu Val Met Tyr Val Asp Asp Lys Ser Asp Gly					
35	40	45			
Val Leu Lys Gly Asp Val Asn Met Ala Leu Leu Leu Lys Asp Gly Gly					
50	55	60			
His Tyr Thr Cys Val Phe Lys Thr Ile Tyr Arg Ser Lys His Ser Ile					
65	70	75	80		
Asn Met Pro Asp Phe His Phe Ile Asp His Arg Ile Glu Ile Met Glu					
85	90	95			
His Asp Glu Asp Tyr Asn His Val Lys Leu Arg Glu Ile Ala Thr Ala					
100	105	110			
Arg His His Gly Leu Lys Gly Lys Pro Ile Pro Asn Pro Leu Leu Gly					
115	120	125			
Leu Asp Ser Thr Arg Thr Gly					
130	135				

<210> 193

<211> 327

<212> DNA

<213> Artificial Sequence

<220>

<223> Synthetically generated

<400> 193

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gacaattta cgatcaaagg ggaaggagga ggataccctt acgaaggagt acagtttatg					120
tctctgaag tggtaatgg cgcgcctctg ccgtttctt tcgatatatt gacaccagca					180
tttcagttatg gaaaccgtac attcacaaa taccagccga tataccagac tatatacaagc					240
tgtcccttcc tgagggctt acctgggagc gaagcattcc ttttcaagac caggcctcat					300
gtaccgtcac aagccacatc aggatga					327

<210> 194

<211> 108

<212> PRT

<213> Artificial Sequence

<220>

<223> Synthetically generated

<400> 194

Met Lys Gly Val Lys Glu Val Met Lys Ile Ser Leu Glu Met Asp Cys
1 5 10 15
Thr Val Asn Gly Asp Lys Phe Thr Ile Lys Gly Glu Gly Gly Tyr
20 25 30
Pro Tyr Glu Gly Val Gln Phe Met Ser Leu Glu Val Val Asn Gly Ala
35 40 45
Pro Leu Pro Phe Ser Phe Asp Ile Leu Thr Pro Ala Phe Gln Tyr Gly
50 55 60
Asn Arg Thr Phe Thr Lys Tyr Gln Pro Ile Tyr Gln Thr Ile Ser Ser
65 70 75 80
Cys Pro Phe Leu Arg Ala Leu Pro Gly Ser Glu Ala Phe Leu Phe Lys
85 90 95
Thr Arg Pro His Val Pro Ser Gln Ala Thr Ser Gly
100 105

<210> 195

<211> 327

<212> DNA

<213> Artificial Sequence

<220>

<223> Synthetically generated

<400> 195

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catcttacag agaaggaagg caagcctctg acgtttctt tcgatgtatt gacaccacaa 180
ttacagtatg gaaacaagt attcgctcgc tacccagccg atataccaga ctatatcaag 240
ctgtccttcc tgagggctt acctgggagc gaagcattcc ttttcaagac caggcctcat 300
gtaccgtcac aagcgacatc agtatga 327

<210> 196

<211> 108

<212> PRT

<213> Artificial Sequence

<220>

<223> Synthetically generated

<400> 196

Met Lys Gly Val Lys Glu Val Met Lys Ile Ser Leu Glu Met Asp Cys
1 5 10 15
Thr Val Asn Gly Asp Lys Phe Thr Ile Lys Gly Glu Gly Gly Tyr
20 25 30
Pro Tyr Glu Gly Thr Gln Thr Leu His Leu Thr Glu Lys Glu Gly Lys
35 40 45
Pro Leu Thr Phe Ser Phe Asp Val Leu Thr Pro Gln Leu Gln Tyr Gly
50 55 60
Asn Lys Ser Phe Val Ser Tyr Pro Ala Asp Ile Pro Asp Tyr Ile Lys
65 70 75 80
Leu Ser Phe Leu Arg Ala Leu Pro Gly Ser Glu Ala Phe Leu Phe Lys
85 90 95
Thr Arg Pro His Val Pro Ser Gln Ala Thr Ser Val
100 105

<210> 197

<211> 408

<212> DNA

<213> Artificial Sequence

<220>

<223> Synthetically generated

<400> 197

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cgcgacggtg	tgctgacggg	acatgacgac	atgactctgc	gggttgaagg	tggccgccat	180
ttgagagttg	actttaaacac	ttcttacata	cccaagaaga	aggtcgagaa	tatgcctgac	240
taccattttt	tagaccaccc	cattgagatt	atggagcatg	acgaggacta	caaccatgtc	300
aagctgcgcg	agtgtgctgt	agctcgctat	tctctgctgc	ctgagaagaa	caagggttaag	360
cctatcccta	accctctcct	cgactcgat	tctacgcgta	ccggtag		408

<210> 198

<211> 135

<212> PRT

<213> Artificial Sequence

<220>

<223> Synthetically generated

<400> 198

Met	Lys	Ser	Asn	Asn	Cys	Phe	Tyr	Tyr	Lys	Ile	His	Phe	Thr	Gly	Glu
1						5			10			15			
Phe	Pro	Pro	His	Gly	Pro	Val	Met	Gln	Arg	Lys	Thr	Val	Lys	Trp	Glu
						20		25		30					
Pro	Ser	Thr	Glu	Arg	Leu	Tyr	Leu	Arg	Asp	Gly	Val	Leu	Thr	Gly	His
						35		40		45					
Asp	Asp	Met	Thr	Leu	Arg	Val	Glu	Gly	Gly	Arg	His	Leu	Arg	Val	Asp
						50		55		60					
Phe	Asn	Thr	Ser	Tyr	Ile	Pro	Lys	Lys	Val	Glu	Asn	Met	Pro	Asp	
						65		70		75			80		
Tyr	His	Phe	Ile	Asp	His	Arg	Ile	Glu	Ile	Met	Glu	His	Asp	Glu	Asp
						85		90		95					
Tyr	Asn	His	Val	Lys	Leu	Arg	Glu	Cys	Ala	Val	Ala	Arg	Tyr	Ser	Leu
						100		105		110					
Leu	Pro	Glu	Lys	Asn	Lys	Gly	Lys	Pro	Ile	Pro	Asn	Pro	Leu	Leu	Gly
						115		120		125					
Leu	Asp	Ser	Thr	Arg	Thr	Gly									
						130		135							